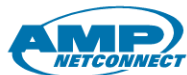


## ENTERPRISE NETWORKS

EMEA Product Catalog



KRONE

FROM TE CONNECTIVITY



# HighBand Wall Mount Patching Solution

The highest performing cross-connect system in the world

## MAXIMUM NETWORK THROUGHPUT

TE Connectivity's HighBand cross connect solution allows for maximum network throughput and a convenient, secure network termination point.



The solution is comprised of high performance disconnection modules, user friendly cable management and innovative antisnag patch cords. It is the ideal cabling solution for companies who require efficiency, guaranteed performance and appealing aesthetics.

The HighBand range is based on Patch-by-Exception, which is a unique termination technology that offers material, installation and operational cost savings, making it a compelling alternative to traditional RJ45 products. The beauty of a patch-by-exception solution is that the connections are hard wired so no patch cords or jumper cables are visible at the front. The system is totally hard wired from network equipment to work area, providing a secure, reliable, high performance infrastructure from switch to work area, or PABX to telephone. Patch cords can be used to route 'exceptions' or changes to the original configuration. The disconnection modules can be either patched or jumpered and used in a Patch-by-Exception structured cabling solution.

HighBand utilizes the silver plated, world renowned LSA-PLUS contact principle. This TE Connectivity technology has become the industry standard in over 140 countries. The gas-tight contacts ensure a reliable and long lasting connection.

The frequent moves, adds and changes that occur in today's cabling systems can quickly degrade the quality of wire termination. TE Connectivity products maintain superior connectivity during hundreds of re-terminations and deliver the best electrical performance in the industry.

## RELIABLE, SECURE AND COST EFFECTIVE



For further information on the HighBand System please contact your local Enterprise Networks sales representative

# Table of Contents

## Systems by Name:

1. MPO/MPOptimate System.....	1
2. MRJ21 System.....	25
3. Sigma-Link System.....	35
4. Mixed Media Platform.....	41
5. FiberGuide System.....	51
6. Storage Area Management (SAM).....	83
7. Core VSM System .....	89
8. Quareo Physical Layer Management System.....	95
9. Optical LAN Solutions.....	117
10. AMP CO System .....	123

## Systems by Technology:

11. Fiber Optic Cabling.....	139
12. Modular Twisted Pair Cabling.....	197
13. Home Net-works Residential Cabling.....	269
14. Commercial and Industrial Ethernet LAN.....	275
15. Administration & Labeling.....	283
Part Number Index.....	287

## What's New?

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### Introducing the first TE Enterprise Networks Catalog with the combined AMP NETCONNECT and KRONE portfolios for the EMEA and AU/NZ regions

This edition of the Enterprise Networks Product Catalog is the first catalog for our EMEA based customers that features products from both the AMP NETCONNECT and KRONE portfolios.

This means that TE Connectivity can now offer you a choice from the best of both worlds to address all of your cabling infrastructure needs, no matter if it's a Data Center, an Office Complex or a Campus environment.

In addition to the existing products from these two world class brands, you'll find many exciting, new products as featured on this double page.

The catalog is split into two main sections: the first (chapters 1-10) contains our products organised by the name of the system, and the second (chapters 11-15) makes it easy to find products by technology for example, Twisted Pair or Fiber Optic.

You'll also find useful cross-references in each section to make sure you don't miss the product you are looking for that may be listed in a different section.



#### MRJ21 XG System – A Pre-Connectorized Plug & Play 10 GbE Copper System

The MRJ21 XG System supports 10 Gigabit Ethernet throughput in all architectures where copper cabling is required. This pre-terminated Plug & Play system enables the data center manager to quickly add additional capacity or services whilst guaranteeing data throughput performance 100% of the time. Also, the lower cable volume deployed in the data center can reduce containment costs, and present less of an obstruction to the airflow entering and exiting the servers and switches.



**Learn more about the MRJ21 XG System from page 26.**

#### Sigma-Link Quick-Fit System - A pre-terminated bundled Copper Cabling Solution

The Sigma-Link Quick-Fit System can be deployed in any application that requires copper twisted pair cabling as the medium of transport. It can be used to connect Users to Switches, Switches to other Switches, or Switches to Servers. Ranging from Category 6 to Category 7A, Sigma-Link supports up to 10 Gigabit Ethernet transmission, and beyond, allowing very high bandwidth applications and protocols to be supported in the future. As a Housing-to-Housing solution it can be quickly located into our UCP panels, taking minimal time to deploy and configure a new channel in the network.



**Learn more about the Sigma-Link Quick-Fit System from page 36.**

#### Storage Area Management – Simplify your Optical Cable Management

TE's Storage Area Management (SAM) Solution for SAN infrastructures is designed to reduce the bulkiness of cabling and connectors in the data center by up to 80% and enable high-density deployment with fewer costly cabinet or infrastructure upgrades. SAM can help you save time, reduce costs, maximize efficiency, and free up much needed space in your data center. It takes the complexity out of cable management, and optimizes the performance of your data center floor space, racks and electronics.

De-clutter your racks for a highly organized, eco-friendly network infrastructure and deliver operational efficiency to your SAN cabling.



**Learn more about the SAM Solution from page 84.**

## What's New?

### Core Vertical Switch Management – Deliver Efficiency to the Core of Your DC

The Core Vertical Switch Management platform (Core VSM) is an innovative solution to the challenges posed in the data center by high-density core switches with a vertical blade configuration.

The platform consists of a cable management guide that fits above the switch and copper or fiber modules that provide connections for blades of either media. The complete Core VSM platform can be installed within an 800 mm wide cabinet, saving valuable white space in the data center.

Within the Core VSM platform, all patch cables, whether fiber or copper, are managed vertically with only one length of patch cord being required to patch within a frame which simplifies the build process and ongoing logistics.

**Learn more about the Core VSM Solution from page 90.**



### Infrastructure Configuration Manager - Know Your Network!

The Infrastructure Configuration Manager (ICM) is software specifically designed to operate as part of TE's Managed Connectivity solution. ICM can be used by a full range of companies – small, medium and enterprise customers can utilize the software to accurately document the physical infrastructure that their business relies on. This software engine enables the automated, accurate, real-time physical layer management of TE's two hardware platforms: AMPTRAC 9th wire system and QUAREO connection point identification technology, providing customers with a single software for both solutions. ICM provides a live graphical view of the physical layer topology, including Layer 2 and Layer 3 devices. The latest addition to this software solution is a mobile app for smartphones (ICM Mobile) which allows a technician to access the ICM desktop functionalities like Work Orders, Events and several settings from a mobile device.

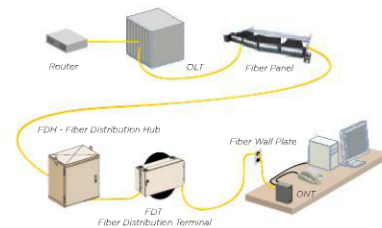
**Learn more about ICM on pages 96 and 104.**



### Optical LAN Solutions – New Ways of Delivering High-Bandwidth to Each Desktop

TE Connectivity offers a complete, end-to-end PON infrastructure solution called Optical LAN Solution (OLS). From the data center to the desktop, our customers have tapped the experience and innovation of TE to build their PON networks. TE's suite of end-to-end connectivity is truly comprehensive and takes a single strand of singlemode fiber from the Data Center all the way to the individual desk or end device location.

**Learn more about OLS from page 118.**



# TE Enterprise Networks 25 Year Warranty

## WARRANTY SUPPORT FOR THE NEXT 25 YEARS

There are many structured cabling warranties available on the market today but only the TE25 Warranty provides all of this in one package, backed by a multi-billion dollar company with connector technology at the heart of its strategy.



TE Connectivity is committed to being the world's leading provider of enterprise networks infrastructure solutions. With connector technology as the prime focus of our business and a track record in the structured cabling industry through our AMP NETCONNECT and KRONE brands, a TE25 warranty provides the added assurance of a warranty backed by a company with long-term industry stability.

## THE TE 25 YEAR SYSTEM WARRANTY PROVIDES COVER ON THE COMPLETE CABLING SYSTEM

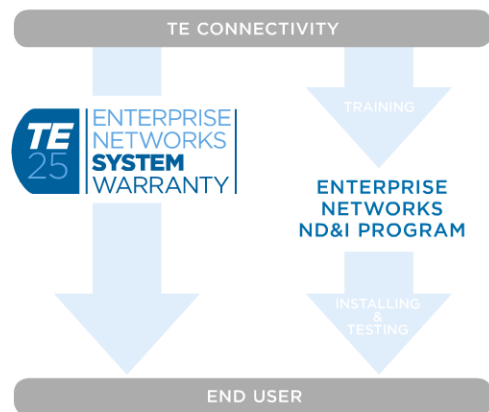
- Comprises cable, connectors, connecting hardware and patch cords
- Covers defects in either materials or workmanship for the full 25 years
- Ensures that all signal carrying components meet the prescribed mechanical and transmission specifications for these products
- Includes repair or replacement of defective products— at our cost
- Includes the labor cost

## DIRECT TO END USER

The TE25 Warranty is a contract made directly between TE Connectivity and the customer.

How It Works:

1. End user selects TE Connectivity Cabling system
2. End user selects ND&I program installer
3. ND&I installs, tests and documents the cabling system
4. ND&I provides defined project documentation and test results to TE Connectivity
5. TE grants warranty to end user



## THE TE25 COMPONENT WARRANTY

For those occasions when a full system warranty is not appropriate, for example where confidentiality or security issues prevent full details of the system being shared with TE, a component warranty is available. Less stringent in terms of the registration requirements and not as comprehensive as the system warranty, it still provides 25 year cover for all TE components to the latest international standards.



## 1. MPO/MPOptimate System

MPO/MPOptimate Installation and Polarity .....	02
12 Fiber MPOptimate System .....	03
12 Fiber MPO System .....	07
24 Fiber MPOptimate System .....	13
MPO/MPOptimate Panels & Accessories .....	19
Q3000 Series MPO Fiber Panels .....	22
MPO/MPOptimate Cleaning Tools .....	24

# MPO/MPOOptimate System

## MPO/MPOOptimate Installation and Polarity

### MPO/MPOOptimate installation and polarity

In each fiber optic system, the link from source (Tx) to receiver (Rx) needs to be flipped once.

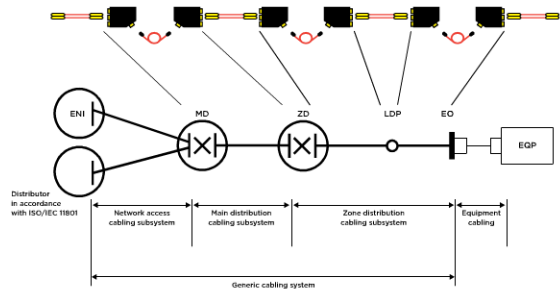
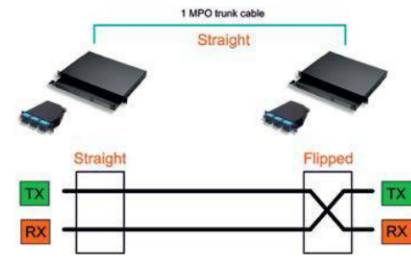
In a complete MPO/MPOOptimate link this flipping is provided by one flipped cassette, while all other components in this link shall be installed as straight version.

### MPOOptimate ready for 10, 40 and 100 Gb/s

The MPOOptimate system is designed to support 10G Ethernet and 4/8/16G Fiber Channel applications through the complete structure of a Data Center, as specified in ISO/IEC 24764, EN 50173-5 and TIA/EIA 942. The MPOOptimate system is designed to have 6 cassettes per link for 10 Gb/s with a full 300 meter support on OM3 fibers and 550 meter on OM4 fibers.

It offers one passive channel from the end equipment to the core switch without the need of repeating signals for amplifying reasons. When using the MPOOptimate cabling system, the owner can replace aggregation switches by a patch cord without changing the passive infrastructure.

The system offers already today a fully 40 and 100 Gb/s capability and seamless migration.



### Length tables for MPO/MPOOptimate trunks and fan-out assemblies

LENGTH TABLE A:

Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length
0-2	2 m	1-3	13 m	2-4	24 m	3-5	35 m	4-6	46 m	5-7	57 m	6-8	68 m	7-9	79 m	8-0	90 m	9-1	91 m	0-2	90 m
0-3	3 m	1-4	14 m	2-5	25 m	3-6	36 m	4-7	47 m	5-8	58 m	6-9	69 m	7-0	80 m	8-1	81 m	9-2	92 m	0-3	89 m
0-4	4 m	1-5	15 m	2-6	26 m	3-7	37 m	4-8	48 m	5-9	59 m	6-0	70 m	7-1	71 m	8-2	82 m	9-3	93 m	0-4	88 m
0-5	5 m	1-6	16 m	2-7	27 m	3-8	38 m	4-9	49 m	5-0	60 m	6-1	61 m	7-2	72 m	8-3	83 m	9-4	94 m	0-5	87 m
0-6	6 m	1-7	17 m	2-8	28 m	3-9	39 m	4-0	40 m	5-1	51 m	6-2	62 m	7-3	73 m	8-4	84 m	9-5	95 m	0-6	86 m
0-7	7 m	1-8	18 m	2-9	29 m	3-0	30 m	4-1	41 m	5-2	52 m	6-3	63 m	7-4	74 m	8-5	85 m	9-6	96 m	0-7	85 m
0-8	8 m	1-9	19 m	2-0	20 m	3-1	31 m	4-2	42 m	5-3	53 m	6-4	64 m	7-5	75 m	8-6	86 m	9-7	97 m	0-8	84 m
0-9	9 m	1-0	20 m	2-1	21 m	3-2	32 m	4-3	43 m	5-4	54 m	6-5	65 m	7-6	76 m	8-7	87 m	9-8	98 m	0-9	83 m
1-0	10 m	1-1	21 m	2-2	22 m	3-3	33 m	4-4	44 m	5-5	55 m	6-6	66 m	7-7	77 m	8-8	88 m	9-9	99 m	1-0	82 m
1-1	11 m	1-2	22 m	2-3	23 m	3-4	34 m	4-5	45 m	5-6	56 m	6-7	67 m	7-8	78 m	8-9	89 m			1-1	81 m
1-2	12 m	1-3	23 m	2-4	24 m	3-5	35 m	4-6	46 m	5-7	57 m	6-8	68 m	7-9	79 m	8-0	90 m			1-2	80 m

LENGTH TABLE B:

Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length	Y-X	Length
9-9	100 m	1-1	111 m	2-2	122 m	3-3	133 m	4-4	148 m	5-5	170 m	6-6	192 m	7-7	270 m	8-8	460 m				
0-1	101 m	1-2	112 m	2-3	123 m	3-4	134 m	4-5	150 m	5-6	172 m	6-7	194 m	7-8	280 m	8-9	480 m				
0-2	102 m	1-3	113 m	2-4	124 m	3-5	135 m	4-6	152 m	5-7	174 m	6-8	196 m	7-9	290 m	9-0	500 m				
0-3	103 m	1-4	114 m	2-5	125 m	3-6	136 m	4-7	154 m	5-8	176 m	6-9	198 m	8-0	300 m						
0-4	104 m	1-5	115 m	2-6	126 m	3-7	137 m	4-8	156 m	5-9	178 m	7-0	200 m	8-1	320 m						
0-5	105 m	1-6	116 m	2-7	127 m	3-8	138 m	4-9	158 m	6-0	180 m	7-1	210 m	8-2	340 m						
0-6	106 m	1-7	117 m	2-8	128 m	3-9	139 m	5-0	160 m	6-1	182 m	7-2	220 m	8-3	360 m						
0-7	107 m	1-8	118 m	2-9	129 m	4-0	140 m	5-1	162 m	6-2	184 m	7-3	230 m	8-4	380 m						
0-8	108 m	1-9	119 m	3-0	130 m	4-1	142 m	5-2	164 m	6-3	186 m	7-4	240 m	8-5	400 m						
0-9	109 m	2-0	120 m	3-1	131 m	4-2	144 m	5-3	166 m	6-4	188 m	7-5	250 m	8-6	420 m						
1-0	110 m	2-1	121 m	3-2	132 m	4-3	146 m	5-4	168 m	6-5	190 m	7-6	260 m	8-7	440 m						



# MPO/MPOptimate System

## 12 Fiber MPOptimate System

### MPOptimate pre-terminated trunks

#### FEATURES

- Cable terminated with low loss 12 fiber MPOptimate connectors
- Terminated with female MPO connectors (male versions on request)
- OM3 or OM4 cable performance, LSZH construction
- Connector performance: Attenuation  $\leq$  0.35 dB (max); RL  $\geq$  28 dB (min)
- The trunks are equipped with midi fan-out and 3.2mm round cable MPO tails
- All tails are protected with transparent protection sleeve
- Available in 12, 24 and 48 fiber (other fiber counts on request)
- Factory pre-terminated assemblies with protocol for constant and reliable quality
- Packaging:  $\leq$ 50 m in box, >50 m on reel
- Re-usable pulling socks can be ordered separately.  
12 - 24 fiber trunks Part Number 2055567-1  
48 fiber trunks Part Number 2055567-2



#### ORDERING INFORMATION

Description	Part Number 2-99 m - table A	Part Number 100-500 m - table B
12 fiber; OM4 XGA 10 Gb/s; Straight; A wiring	Y-2055576-X	Y-2055577-X
24 fiber; OM4 XGA 10 Gb/s; Straight; A wiring	Y-2055578-X	Y-2055579-X
48 fiber; OM4 XGA 10 Gb/s; Straight; A wiring	Y-2160075-X	Y-2160076-X
12 fiber; OM3 XG 10 Gb/s; A wiring	Y-2055611-X	Y-2055612-X
24 fiber; OM3 XG 10 Gb/s; A wiring	Y-2055715-X	Y-2055716-X
48 fiber; OM3 XG 10 Gb/s; A wiring	Y-2160073-X	Y-2160074-X

For available lengths: see page 02

### MPOptimate to LC Micro-Cassettes and Quick-Fit Modules

#### FEATURES:

- Pre-terminated low loss cassettes with protocol for constant and reliable quality
- Up to 2 Micro-Cassettes per Quick-Fit Module, 4 modules per UCP panel (1U)
- Easy upgrade from 1 x 12 to 2 x 12 fiber density
- Optical cassette performance both OM3 and OM4:  
Attenuation  $\leq$  0.35 dB(max.) RL  $\geq$  27 dB(min)
- Double-sided label strip included with Quick-Fit Module  
(Port number labelling either 1-2-3-4-5-6 or 1/6-2/5-3/4-4/3-5/2-6/1)
- Easy to install: front and back access to insert or remove the Micro-Cassette



#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
1 x MPOptimate to 6 x LC Duplex (12 fiber); OM3 XG 10 Gb/s	2153211-3	1-2153211-3
1 x MPOptimate to 6 x LC Duplex (12 fiber); OM4 XGA 10 Gb/s	2153211-5	1-2153211-5
		<b>Part Number</b>
Quick-Fit modules, holding up to 2 Micro-Cassettes (box of 4 modules + 4 blanking plates)		2153244-1
Quick-Fit modules, holding up to 2 Micro-Cassettes (box of 48 modules + 48 blanking plates)		2153244-2

All cassettes are individually packed per box

# MPO/MPOptimate System

## 12 Fiber MPOptimate System

### MPOptimate to LC Quick-Fit cassettes

#### FEATURES

- Pre-terminated low loss cassettes
- Front: 6 x optimized LC Duplex or 6 x optimized LC Quad
- Back: 1 or 2 low loss MPOptimate connector(s)
- Available in straight or flipped pair version
- Optical cassette performance in OM3 and OM4:  
Attenuation  $\leq$  0.35 dB/cassette (max.)  
RL  $\geq$  27 dB (min)
- All products with protocol, for constant and reliable quality
- Fits in AMP NETCONNECT Quick-Fit patch panels with maximum density of 4 cassettes per 1U
- Port number labeling and additional label strip included



#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
1 x MPOptimate to 6 x LC Duplex (12 fiber); OM3 XG 10 Gb/s	1671226-3	1-1671226-3
1 x MPOptimate to 6 x LC Duplex (12 fiber); OM4 XG <sub>A</sub> 10 Gb/s	1671226-5	1-1671226-5
2 x MPOptimate to 6 x LC Quad (24 fiber); OM3 XG 10 Gb/s	1671227-3	1-1671227-3
2 x MPOptimate to 6 x LC Quad (24 fiber); OM4 XG <sub>A</sub> 10 Gb/s	1671227-5	1-1671227-5

### MPOptimate to SC Quick-Fit cassettes

#### FEATURES

- Pre-terminated low loss cassettes
- Front: 6 x optimized SC Duplex
- Back: 1 x low loss MPOptimate connector
- Available in straight or flipped pair version
- Optical cassette performance in OM3:  
Attenuation  $\leq$  0.35 dB (max.)  
RL  $\geq$  27 dB (min)
- All products with protocol, for constant and reliable quality
- Fits in AMP NETCONNECT Quick-Fit patch panels with maximum density of 4 cassettes per 1U

Port number labeling and additional label strip included



#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
1 x MPOptimate to 6 x SC Duplex; (12 fiber); OM3 XG 10 Gb/s	1671228-3	1-1671228-3

# MPO/MPOptimate System

## 12 Fiber MPOptimate System

### MPOptimate to LC pre-assembled panel

#### FEATURES

- Pre-terminated panel with 4 or 8 MPOptimate 12 fiber trunk connections at rear and 12 or 24 optimized LC Quad at the front side
- Flush mount LC couplers in front and integrated management on the rear side
- Optical panel performance: Attenuation  $\leq 0.35$  dB (max); RL  $\geq 27$  dB (min)
- All products with protocol, for constant and reliable quality



#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
Fiber type: OM3 XG 10 Gb/s; Fiber count: 96 fiber	1966328-5	2-1966328-5
Fiber type: OM3 XG 10 Gb/s; Fiber count: 48 fiber	1966328-6	2-1966328-6
Fiber type: OM4 XGA 10 Gb/s; Fiber count: 96 fiber	1966328-8	2-1966328-8
Fiber type: OM4 XGA 10 Gb/s; Fiber count: 48 fiber	1966328-7	2-1966328-7

### MPOptimate patch cords

#### FEATURES

- Low loss MPOptimate 12 fiber MPO round cable patch cord
- Terminated with male and/or female MPOptimate connectors
- Cable performance: OM4; OM3 XG 10 Gb/s; LSZH construction
- Connector performance: Attenuation  $\leq 0.35$  dB (max.); RL  $\geq 28$  dB (min)
- All products with protocol, for constant and reliable quality
- Available in female/female and male/female version in straight "A" wiring and total flipped "B" wiring



**Color:** aqua

#### LENGTH TABLE:

Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length		
9- -0	0,5	9- -5	5,5	1- -1	11	2- -1	21	3- -1	31	4- -1	41	5- -1	51	6- -1	61	7- -1	71
0- -1	1,0	0- -6	6,0	1- -2	12	2- -2	22	3- -2	32	4- -2	42	5- -2	52	6- -2	62	7- -2	72
9- -1	1,5	9- -6	6,5	1- -3	13	2- -3	23	3- -3	33	4- -3	43	5- -3	53	6- -3	63	7- -3	73
0- -2	2,0	0- -7	7,0	1- -4	14	2- -4	24	3- -4	34	4- -4	44	5- -4	54	6- -4	64	7- -4	74
9- -2	2,5	9- -7	7,5	1- -5	15	2- -5	25	3- -5	35	4- -5	45	5- -5	55	6- -5	65	7- -5	75
0- -3	3,0	0- -8	8,0	1- -6	16	2- -6	26	3- -6	36	4- -6	46	5- -6	56	6- -6	66	7- -6	76
9- -3	3,5	9- -8	8,5	1- -7	17	2- -7	27	3- -7	37	4- -7	47	5- -7	57	6- -7	67	7- -7	77
0- -4	4,0	0- -9	9,0	1- -8	18	2- -8	28	3- -8	38	4- -8	48	5- -8	58	6- -8	68	7- -8	78
9- -4	4,5	9- -9	9,5	1- -9	19	2- -9	29	3- -9	39	4- -9	49	5- -9	59	6- -9	69	7- -9	79
0- -5	5,0	1- -0	10	2- -0	20	3- -0	30	4- -0	40	5- -0	50	6- -0	60	7- -0	70	8- -0	80

#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs total flipped Part Number
MPOptimate female - MPOptimate female patch cord; OM3 XG 10 Gb/s	Y-2160135-X	Y-2160193-X
MPOptimate female - MPOptimate female patch cord; OM4 XGA 10 Gb/s	Y-2160136-X	Y-2160194-X
MPOptimate female - MPOptimate male patch cord; OM3 XG 10 Gb/s	Y-2160139-X	Y-2160197-X
MPOptimate female - MPOptimate male patch cord; OM4 XGA 10 Gb/s	Y-2160140-X	Y-2160198-X

# MPO/MPOptimate System

## 12 Fiber MPOptimate System

### MPOptimate Fan-Out cable assemblies

#### FEATURES

- Low loss transition from MPO to LC or SC tails 2 mm
- Terminated with female or male MPOptimate connectors
- Cable performance: OM4 or OM3 XG 10 Gb/s; LSZH construction
- Optical performance:  
MPO connector: Attenuation  $\leq$  0.35 dB (max.); RL  $\geq$  28 dB (min)  
LC/SC connector: Attenuation  $\leq$  0.15 dB (max); RL  $\geq$  35 dB (min)
- All products with protocol, for constant and reliable quality
- Tail lengths: 4 x 40 cm, 4 x 50 cm, 4 x 60 cm. Other tail lengths available on request
- The trunks are equipped with midi fan-out; 3.2 round cable MPO tails and 2.0mm LC or SC tails
- All tails are protected with transparent protection sleeve
- Packaging:  $\leq$ 50 m in box,  $>$ 50 m on reel
- Re-usable pulling socks can be ordered separately. Part Number 2055567-1



#### ORDERING INFORMATION

Description	Part Number	Part Number
	2-99 m - table A	100-500 m - table B
1 x MPOptimate female to 12 x LC Simplex; OM4 XGA 10 Gb/s	Y-2055580-X	Y-2055581-X
1 x MPOptimate female to 12 x SC Simplex; OM4 XGA 10 Gb/s	Y-2160114-X	Y-2160115-X
1 x MPOptimate female to 12 x LC Simplex; OM3 XG 10 Gb/s	Y-2055623-X	Y-2055624-X
1 x MPOptimate female to 12 x SC Simplex; OM3 XG 10 Gb/s	Y-2160112-X	Y-2160113-X
1 x MPOptimate male to 12 x LC Simplex; OM4 XGA 10 Gb/s	Y-2160146-X	Y-2160147-X
1 x MPOptimate male to 12 x SC Simplex; OM4 XGA 10 Gb/s	Y-2160126-X	Y-2160127-X
1 x MPOptimate male to 12 x LC Simplex; OM3 XG 10 Gb/s	Y-2055600-X	Y-2055704-X

For available lengths: see 02

### MPOptimate System LC and SC patch cords

#### FEATURES

- Patch cords with optimized LC and SC connectors
- Cable performance: OM4 or OM3 XG 10 Gb/s; LSZH construction
- Optical performance:  
- LC connector: Attenuation  $\leq$  0.15 dB (max); RL  $\geq$  35 dB (min)  
- SC connector: Attenuation  $\leq$  0.15 dB (max); RL  $\geq$  35 dB (min)
- All products with protocol, for constant and reliable quality



Y- X	Length
0- -1	1 m
0- -3	3 m
0- -5	5 m
1- -0	10 m

#### ORDERING INFORMATION

Description	Part Number
Patch cord LC Duplex - LC Duplex; OM3 XG 10 Gb/s	Y-1920743-X
Patch cord SC Duplex - SC Duplex; OM3 XG 10 Gb/s	Y-2055108-X
Patch cord LC Duplex - SC Duplex; OM3 XG 10 Gb/s	Y-2055109-X
Patch cord LC Duplex - LC Duplex; OM4 XGA 10 Gb/s	Y-2160046-X
Patch cord SC Duplex - SC Duplex; OM4 XGA 10 Gb/s	Y-2160047-X
Patch cord LC Duplex - SC Duplex; OM4 XGA 10 Gb/s	Y-2160048-X

# MPO/MPOptimate System

## 12 Fiber MPO System

### Pre-terminated MPO trunk cable, 12/24/48 fiber

#### FEATURES

- Factory pre-terminated assemblies
- Cables terminated with high density MPO connectors
- All products with protocol, for constant and reliable quality
- In OM3 and OS2 design with LSZH sheath
- Available in lengths from 2 up to 500 m
- The trunks are equipped with midi fan-out and 3.2mm round cable MPO tails
- All tails are protected with transparent protection sleeve
- Available in 12, 24 and 48 fiber (other fiber counts on request)
- Packaging: ≤50 m in box, >50 m on reel
- Re-usable pulling socks can be ordered separately.  
12 and 24 fibre trunks Part number 2055567-1  
48 fibre trunks Part number 2055567-2



#### ORDERING INFORMATION

Description	Part Number	Part Number
	2-99 m - table A	100-500 m - table B
12 Fiber; OM3 XG 10 Gb/s; Straight "A" wiring	Y-2055707-X	Y-2055708-X
24 Fiber; OM3 XG 10 Gb/s; Straight "A" wiring	Y-2055709-X	Y-2055710-X
48 Fiber; OM3 XG 10 Gb/s; Straight "A" wiring	Y-2160071-X	Y-2160072-X
12 Fiber; SM; Straight "A" wiring	Y-2055711-X	Y-2055712-X
24 Fiber; SM; Straight "A" wiring	Y-2055713-X	Y-2055714-X
48 Fiber; SM; Straight "A" wiring	Y-2160077-X	Y-2160078-X

For available lengths: see page 02

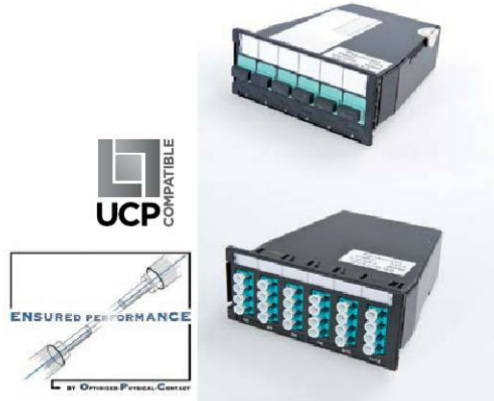
# MPO/MPOptimate System

## 12 Fiber MPO System

### MPO to LC Quick-Fit cassettes

#### FEATURES

- Simple and flexible premises fiber cabling
- Pre-terminated cassettes with either 1 or 2 MPO trunk connections (1 x 12 or 2 x 12 fibers) at rear
- 6 x LC Duplex (12 fibers) or 6 x LC Quad (24 fibers) connection in the front
- All products with protocol, for constant and reliable quality
- Easy installation, moves, adds and changes
- Fits in all AMP NETCONNECT Patch Panels for Quick-Fit Modules
- Panels accept up to 4 cassettes achieving up to 96 fiber connections on 1U



#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
1 x MPO to 6 x LC Duplex; OM3 XG 10 Gb/s	1671205-3	1-1671205-3
2 x MPO to 6 x LC Quad; OM3 XG 10 Gb/s	1671206-3	1-1671206-3
1 x MPO to 6 x LC Duplex; SM	1671205-4	1-1671205-4
1 x MPO to 6 x LC APC Duplex; SM	1671205-6	1-1671205-6
2 x MPO to 6 x LC Quad; SM	1671206-4	1-1671206-4
2 x MPO to 6 x LC APC Quad; SM	1671206-6	1-1671206-6

### MPO to SC Quick-Fit cassettes

#### FEATURES

- Simple and flexible premises fiber cabling
- Pre-terminated cassettes with 1 MPO trunk connection (1 x 12 fibers) at rear
- 6 x SC Duplex (12 fibers) connections in the front
- All products with protocol, for constant and reliable quality
- Easy installation, moves, adds and changes
- Fits in all AMP NETCONNECT Patch Panels for Quick-Fit Modules
- Panels accept up to 4 cassettes on 1U



#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs flipped Part Number
1 x MPO to 6 x SC Duplex; OM3 XG 10 Gb/s	1671207-3	1-1671207-3
1 x MPO to 6 x SC Duplex; SM	1671207-4	1-1671207-4
1 x MPO to 6 x SC APC Duplex; SM	1671207-6	1-1671207-6

# MPO/MPOptimate System

## 12 Fiber MPO System

### MPO to LC pre-assembled panel

#### FEATURES

- Simple and flexible premises fiber cabling
- High Density Compact designed fix style 19" panel 1U
- Pre-terminated panel with 4 or 8 MPO 12 fiber trunk connections at rear and 12 or 24 LC Quad at the front side
- All products with protocol, for constant and reliable quality
- Flush mount LC couplers in front and integrated management on the rear side



#### ORDERING INFORMATION

Description	Pairs Straight Part Number	Pairs Flipped Part Number
Fiber Type: OM3 XG 10 Gb/s; Fiber count: 96 fibers	1966328-1	2-1966328-1
Fiber Type: OM3 XG 10 Gb/s; Fiber count: 48 fibers	1966328-2	2-1966328-2
Fiber Type: SM; Fiber count: 96 fibers	1966328-3	2-1966328-3

### MPO patch cords

#### FEATURES

- MPO patch cord
- Cable performance: OM3 or OS2; LSZH 3.2mm round cable construction
- All products with protocol, for constant and reliable quality
- Available in female/female and male/female version in straight "A" wiring and total flipped wiring "B" wiring



**Color:** aqua

#### LENGTH TABLE:

Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length	Y- X	Length		
9- -0	0,5	9- -5	5,5	1- -1	11	2- -1	21	3- -1	31	4- -1	41	5- -1	51	6- -1	61	7- -1	71
0- -1	1,0	0- -6	6,0	1- -2	12	2- -2	22	3- -2	32	4- -2	42	5- -2	52	6- -2	62	7- -2	72
9- -1	1,5	9- -6	6,5	1- -3	13	2- -3	23	3- -3	33	4- -3	43	5- -3	53	6- -3	63	7- -3	73
0- -2	2,0	0- -7	7,0	1- -4	14	2- -4	24	3- -4	34	4- -4	44	5- -4	54	6- -4	64	7- -4	74
9- -2	2,5	9- -7	7,5	1- -5	15	2- -5	25	3- -5	35	4- -5	45	5- -5	55	6- -5	65	7- -5	75
0- -3	3,0	0- -8	8,0	1- -6	16	2- -6	26	3- -6	36	4- -6	46	5- -6	56	6- -6	66	7- -6	76
9- -3	3,5	9- -8	8,5	1- -7	17	2- -7	27	3- -7	37	4- -7	47	5- -7	57	6- -7	67	7- -7	77
0- -4	4,0	0- -9	9,0	1- -8	18	2- -8	28	3- -8	38	4- -8	48	5- -8	58	6- -8	68	7- -8	78
9- -4	4,5	9- -9	9,5	1- -9	19	2- -9	29	3- -9	39	4- -9	49	5- -9	59	6- -9	69	7- -9	79
0- -5	5,0	1- -0	10	2- -0	20	3- -0	30	4- -0	40	5- -0	50	6- -0	60	7- -0	70	8- -0	80

#### ORDERING INFORMATION

Description	Pairs straight Part Number	Pairs total flipped Part Number
MPO female - MPO female Patch Cord; OM3 XG 10 Gb/s	Y-2160134-X	Y-2160192-X
MPO female - MPO female Patch Cord; SM	Y-2160137-X	Y-2160195-X
MPO male - MPO female Patch Cord; OM3 XG 10 Gb/s	Y-2160138-X	Y-2160196-X
MPO male - MPO female Patch Cord; SM	Y-2160141-X	Y-2160199-X

# MPO/MPOptimate System

## 12 Fiber MPO System

### MPO Fan-Out cable assemblies

#### FEATURES

- MPO round cable to LC or SC 12 x 2 mm tails
- Terminated with female or male MPO connectors
- Cable performance: OM3 and OS2 in LSZH construction
- All products with protocol, for constant and reliable quality
- Tail lengths: 4 x 40cm, 4 x 50cm, 4 x 60cm (other tail lengths available on request).
- The trunks are equipped with midi fan-out; 3,2 round cable MPO tails and 2.0mm LC or SC tails
- All tails are protected with transparent protection sleeve
- Packaging: ≤50 m in box, >50 m on reel
- Re-usable pulling socks can be ordered separately. Part Number 2055567-1



#### ORDERING INFORMATION

Description	Part Number	Part Number
	2-99 m - table A	100-500 m - table B
1 x MPO female to 12 x LC Simplex; OM3 XG 10 Gb/s	Y-2160106-X	Y-2160107-X
1 x MPO female to 12 x LC Simplex; SM	Y-2160108-X	Y-2160109-X
1 x MPO female to 12 x SC Simplex; OM3 XG 10 Gb/s	Y-2160110-X	Y-2160111-X
1 x MPO female to 12 x SC Simplex; SM	Y-2160116-X	Y-2160117-X
1 x MPO male to 12 x LC Simplex; OM3 XG 10 Gb/s	Y-2160012-X	Y-2160013-X
1 x MPO male to 12 x LC Simplex; SM	Y-2160122-X	Y-2160123-X
1 x MPO male to 12 x SC Simplex; OM3 XG 10 Gb/s	Y-2160124-X	Y-2160125-X
1 x MPO male to 12 x SC Simplex; SM	Y-2160128-X	Y-2160129-X

For available lengths: see page 02



# MPO/MPOptimate System

## 12 Fiber MPO System

### Patch Leads – Technical Data

#### SC Assemblies

Cable sheath:	LSZH
Cable diameter:	2.5 mm Twin Zip
Ferrule	Ceramic

#### LC Assemblies

Cable sheath:	LSZH
Cable diameter:	1.8 mm Mini Twin Zip
Ferrule	Ceramic

All assemblies are machine polished providing highest quality.

Multimode OM3 and singlemode OS2 assemblies have an ensured performance by Optimized-Physical-Contact (OPC).

All assemblies are factory tested and come with a test protocol.

Insertion Loss and Return Loss values specified against reference connectors.

#### Singlemode Patch Cords

Connector Type	Attenuation max.	Return loss. min.	Temp. Range
SC, PC	0,3 dB	> 45 dB	-10°C / +60°C
LC, PC	0,3 dB	> 45 dB	-10°C / +60°C

#### Multimode Patch Cords

Connector Type	Attenuation max.	Return loss. min.	Temp. Range
SC, PC	0,3 dB	> 20 dB	-10°C / +60°C
LC, PC	0,3 dB	> 20 dB	-10°C / +60°C

### LC Duplex / LC Duplex patch cords

#### FEATURES

- All assemblies are machine polished providing highest quality.
- Multimode OM3 and singlemode OS2 assemblies have an ensured performance by Optimized-Physical-Contact (OPC).
- All assemblies are factory tested and come with a test protocol



#### ORDERING INFORMATION

Description	Part Number	Y- X	Length
OS2	Y-6536501-X	0- -1	1 m
OM3 XG 10 Gb/s	Y-6536969-X	0- -2	2 m
		0- -3	3 m
		0- -5	5 m
		1- -0	10 m

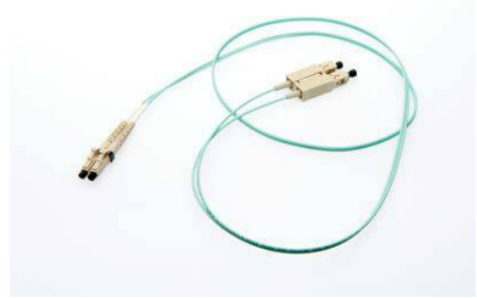
# MPO/MPOptimate System

## 12 Fiber MPO System

### LC Duplex / SC Duplex patch cords

#### FEATURES

- All assemblies are machine polished providing highest quality.
- Multimode OM3 and singlemode OS2 assemblies have an ensured performance by Optimized-Physical-Contact (OPC).
- All assemblies are factory tested and come with a test protocol



#### ORDERING INFORMATION

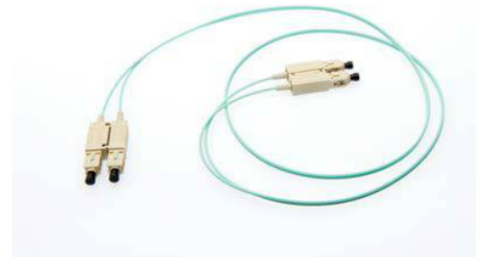
Description	Part Number
OS2	Y-6536508-X
OM3 XG 10 Gb/s	Y-6536967-X

Y- -X	Length
0- -1	1 m
0- -2	2 m
0- -3	3 m
0- -5	5 m
1- -0	10 m

### SC Duplex / SC Duplex patch cords

#### FEATURES

- All assemblies are machine polished providing highest quality.
- Multimode OM3 and singlemode OS2 assemblies have an ensured performance by Optimized Physical Contact (OPC).
- All assemblies are factory tested and come with a test protocol



#### ORDERING INFORMATION

Description	Part Number
OS2	Y-6348260-X
OM3 XG 10 Gb/s	Y-6536464-X

Y- -X	Length
0- -1	1 m
0- -2	2 m
0- -3	3 m
0- -5	5 m
1- -0	10 m

# MPO/MPOptimate System

## 24 Fiber MPOptimate System

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### 24 Fiber MPOptimate System

Demand for bandwidth and storage is expanding at a breathtaking rate within the data center, which means that the environment is rapidly evolving, making the impact on data center design and management profound.

Networks will need to be ready to migrate from 10 to 40 to 100 GbE speeds dynamically, whilst data center managers and designers need to be able to manage this migration to maximize efficiency and responsiveness while minimizing cost.

Preparing for this trend demands a simple yet robust migration pathway.

As part of TE Connectivity's data center solution, the 24 Fiber MPOptimate system enables such a plan, supporting the migration of increasing data speeds required to support the next generation of servers, storage and switching platforms.



#### SYSTEM FEATURES:

- Low-loss 24 fiber MPOptimate modules
- Fast interfacing, "trouble free" of gender and polarity issues
- Low loss 24 fiber MPOptimate trunks
- Supporting 10/40/100GbE throughput
- A single trunking format that can be replicated and upgraded simply and flexibly
- Pre-engineered paths and polarity
- 24 Fiber trunk systems offer higher fiber utilization versus 12 fiber trunk systems
- Fewer trunks: less containment space needed leading to lower initial build costs.
- Fewer connections: faster time to turn up circuits
- Fewer components
- Standardized practices for design, installation, documentation and troubleshooting polarity
- Each product is individually tested to ensure that its performance meets or exceeds the required standard. The test results are supplied with each product.

# MPO/MPOptimate System

## 24 Fiber MPOptimate System

### MPOptimate 24f pre-terminated trunks

#### FEATURES

- Loose tube cable construction, ideal for routing through cable tray or raceway
- Cable terminated with low loss 24 fiber MPOptimate connectors
- Terminated with female MPO connectors (male versions on request)
- OM3, OM4 cable performance, LSZH construction
- Connector performance for OM3/OM4:  
Attenuation  $\leq 0.25$  dB (max.);  
RL  $\geq 28$  dB (min)
- The trunks are equipped with midi fan-out and 3.8mm round cable MPO tails (80cm)
- All tails are protected with transparent protection sleeve
- Factory pre-terminated assemblies
- All products with protocol, for constant and reliable quality
- Packaging:  $\leq 50$  m in box,  $>50$  m on reel
- Re-usable pulling socks can be ordered separately. Part Number 2055567-1



**Color:** aqua

#### ORDERING INFORMATION

Description	Part Number	Part Number
	2-99 m - table A	100-500 m - table B
24 fiber; OM3; Straight A wiring;	Y-2160663-X	Y-2160664-X
24 fiber; OM4; Straight A wiring;	Y-2160608-X	Y-2160609-X

For available lengths: see 02

# MPO/MPOptimate System

## 24 Fiber MPOptimate System

### 10Gb/s Cassettes – 1x24 fiber MPO to 6 LC Quad connectors



#### FEATURES

- Pre-terminated low loss cassettes
- Front: 6 x optimized LC Quad
- Back: 1 x 24 fiber low loss MPOptimate connector
- Optical cassette performance for OM3/OM4:  
Attenuation  $\leq$  0.35 dB(max.) RL  $\geq$  27 dB(min)
- All products with protocol, for constant and reliable quality
- Port number labelling and additional label strip included



#### ORDERING INFORMATION

Description	Part Number straight	Part Number flipped
1x24 fiber MPO to 6x LC Quad OM4	2160266-5	1-2160266-5
1x24 fiber MPO to 6x LC Quad OM3	2160266-3	1-2160266-3

### 40GbE (4 x 10GbE) Cassette – 1x24 fiber MPO to 6 LC Quad connectors



#### FEATURES:

- Quick-Fit design, fits in all UCP products
- OM4 bend insensitive fiber
- For channel with 40G MPO cassettes connected to 40G (4x10G) transceiver
- Cassette attenuation: typical 0.25dB/max. 0.35dB
- Cassette Return Loss: 27dB min



#### ORDERING INFORMATION

Description	Wire map	Part Number
1x24 fiber MPO to 6x LC Quad	Special 40/10G	2160640-5

### 40Gb/s Cassette – 1x24 fiber MPO to 3x12 (8) fiber MPO connectors



#### FEATURES:

- Quick-Fit design, fits in all UCP products
- OM4 bend insensitive fiber
- Cassette attenuation: typical 0.36dB/max. 0.5dB
- Cassette Return Loss: 27dB min



#### ORDERING INFORMATION

Description	Wire map	Part Number
1x24 fiber MPO to 3x12(8) fiber MPO	Universal	2160639-5

# MPO/MPOptimate System

## 24 Fiber MPOptimate System

### 40Gb/s Cassette – 2x24 fiber MPO to 6x12 (8) fiber MPO connectors



**FEATURES:**

- Quick-Fit design, fits in all UCP products
- OM4 bend insensitive fiber
- Cassette attenuation: typical 0.36dB/max. 0.5dB
- Cassette Return Loss: 27dB min

**ORDERING INFORMATION**

Description	Wire map	Part Number
2x24 fiber MPO to 6x12(8) fiber MPO	Universal	2160649-5



### 100Gb/s Cassette – 1x24 fiber MPO to 1x24 fiber MPO connector



**FEATURES:**

- Quick-Fit design, Fits in all UCP products
- OM4 bend insensitive fiber
- Cassette attenuation: typical 0.36dB/max. 0.5dB
- Cassette Return Loss: 27dB min

**ORDERING INFORMATION**

Description	Wire map	Part Number
1x24 fiber MPO to 1x24 fiber MPO	Polarity A	2160650-5
1x24 fiber MPO to 1x24 fiber MPO	Polarity B	1-2160650-5



### 100Gb/s Cassette – 2x24 fiber MPO to 2x24 fiber MPO connectors



**FEATURES:**

- Quick-Fit design, fits in all UCP products
- OM4 bend insensitive fiber
- Cassette attenuation: typical 0.36dB/max. 0.5dB
- Cassette Return Loss: 27dB min

**ORDERING INFORMATION**

Description	Wire map	Part Number
2x24 fiber MPO to 2x24 fiber MPO	Polarity A	2160651-5
2x24 fiber MPO to 2x24 fiber MPO	Polarity B	1-2160651-5



# MPO/MPOptimate System

## 24 Fiber MPOptimate System

### MPOptimate 24f patch cords

#### FEATURES

- For direct connection of 100G transceivers
- Construction suited to inter-cabinet patching
- Low loss MPOptimate 24 fiber MPO round 3.8mm cable patch cord
- OM3 and OM4 cable performance, LSZH construction
- Connector performance for OM3/OM4:  
Attenuation  $\leq$  0.25 dB (max.); RL  $\geq$  28 dB (min)
- All products with protocol, for constant and reliable quality



Color: aqua



#### LENGTH TABLE:

Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length		
9- -0	0,5	9- -5	5,5	1- -1	11	2- -1	21	3- -1	31	4- -1	41	5- -1	51	6- -1	61	7- -1	71
0- -1	1,0	0- -6	6,0	1- -2	12	2- -2	22	3- -2	32	4- -2	42	5- -2	52	6- -2	62	7- -2	72
9- -1	1,5	9- -6	6,5	1- -3	13	2- -3	23	3- -3	33	4- -3	43	5- -3	53	6- -3	63	7- -3	73
0- -2	2,0	0- -7	7,0	1- -4	14	2- -4	24	3- -4	34	4- -4	44	5- -4	54	6- -4	64	7- -4	74
9- -2	2,5	9- -7	7,5	1- -5	15	2- -5	25	3- -5	35	4- -5	45	5- -5	55	6- -5	65	7- -5	75
0- -3	3,0	0- -8	8,0	1- -6	16	2- -6	26	3- -6	36	4- -6	46	5- -6	56	6- -6	66	7- -6	76
9- -3	3,5	9- -8	8,5	1- -7	17	2- -7	27	3- -7	37	4- -7	47	5- -7	57	6- -7	67	7- -7	77
0- -4	4,0	0- -9	9,0	1- -8	18	2- -8	28	3- -8	38	4- -8	48	5- -8	58	6- -8	68	7- -8	78
9- -4	4,5	9- -9	9,5	1- -9	19	2- -9	29	3- -9	39	4- -9	49	5- -9	59	6- -9	69	7- -9	79
0- -5	5,0	1- -0	10	2- -0	20	3- -0	30	4- -0	40	5- -0	50	6- -0	60	7- -0	70	8- -0	80

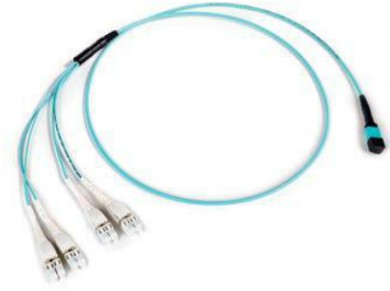
#### ORDERING INFORMATION

Description	Part Number
24 fiber; OM4; Straight A wiring; Female/Female	Y-2160304-X
24 fiber; OM4; Straight A wiring; Female/Male	Y-2160307-X
24 fiber; OM4; Straight A wiring; Male/Male	Y-2160738-X
24 fiber; OM4; Flipped B wiring; Female/Male	Y-2160654-X
24 fiber; OM4; Flipped B wiring; Male/Male	Y-2160694-X
24 fiber; OM3; Straight A wiring; Female/Female	Y-2160305-X

# MPO/MPOptimate System

## 24 Fiber MPOptimate System

### 40GbE to 10GbE Fan-Out cords - 12 fiber MPO to 4xLC duplex (Fan-Out)



#### FEATURES:

- MPO side connects to 40G QSFP transceiver, LC side connects to 10G SPF+ (channel)
- Wire map: LC 1-MPO fiber 1-12, LC2-MPO fiber 2-11, LC3-MPO fiber 3-10, LC4-MPO fiber 4-9
- 8 fiber 3,2/2,0mm diameter
- OM4 bend insensitive fiber LSZH cable
- Flammability IEC 60332 Parts 1 & 3

Color: Aqua



#### LENGTH TABLE:

Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length	Y- -X	Length		
9- -0	0,5	9- -5	5,5	1- -1	11	2- -1	21	3- -1	31	4- -1	41	5- -1	51	6- -1	61	7- -1	71
0- -1	1,0	0- -6	6,0	1- -2	12	2- -2	22	3- -2	32	4- -2	42	5- -2	52	6- -2	62	7- -2	72
9- -1	1,5	9- -6	6,5	1- -3	13	2- -3	23	3- -3	33	4- -3	43	5- -3	53	6- -3	63	7- -3	73
0- -2	2,0	0- -7	7,0	1- -4	14	2- -4	24	3- -4	34	4- -4	44	5- -4	54	6- -4	64	7- -4	74
9- -2	2,5	9- -7	7,5	1- -5	15	2- -5	25	3- -5	35	4- -5	45	5- -5	55	6- -5	65	7- -5	75
0- -3	3,0	0- -8	8,0	1- -6	16	2- -6	26	3- -6	36	4- -6	46	5- -6	56	6- -6	66	7- -6	76
9- -3	3,5	9- -8	8,5	1- -7	17	2- -7	27	3- -7	37	4- -7	47	5- -7	57	6- -7	67	7- -7	77
0- -4	4,0	0- -9	9,0	1- -8	18	2- -8	28	3- -8	38	4- -8	48	5- -8	58	6- -8	68	7- -8	78
9- -4	4,5	9- -9	9,5	1- -9	19	2- -9	29	3- -9	39	4- -9	49	5- -9	59	6- -9	69	7- -9	79
0- -5	5,0	1- -0	10	2- -0	20	3- -0	30	4- -0	40	5- -0	50	6- -0	60	7- -0	70	8- -0	80

#### ORDERING INFORMATION

Description	Wire map	Part Number
12 fiber MPO to 4x LC duplex cable.	Special 40/10G	Y-2160510-X



# MPO/MPOptimate System

## MPO/MPOptimate Panels & Accessories

### UCP Patch Panel Angled and Flushmount

Please refer to Chapter 4, page 48

Note: For angled modular drawer panels see page 148



### Angled Quick-Fit MPO/MPOptimate drawer panel

#### FEATURES

- Accommodates up to 4 MPO/MPOptimate Quick-Fit cassettes
- High-End solution
- Fully integrated and retractable cable management bracket
- Allows for easy Move, Adds and Changes
- Angled style of panels provides additional cable management towards side area

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Modular MPO/MPOptimate drawer panel for 4 Quick-Fit cassettes, angled	1-1671436-1

### Flush Quick-Fit MPO/MPOptimate drawer panel

#### FEATURES

- Accommodates up to 4 MPO/MPOptimate Quick-Fit cassettes
- High-End solution
- Fully integrated and retractable cable management bracket
- Allows for easy Move, Adds and Changes
- Flushmount

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Modular MPO/MPOptimate drawer panel for 4 Quick-Fit cassettes, flush	1-1671437-1

# MPO/MPOptimate System

## MPO/MPOptimate Panels & Accessories

### Modular MPO/MPOptimate front plate for Quick-Fit cassettes

#### FEATURES

- Low cost solution
- Flush mount
- Front plate with no additional cable management
- Does accept copper and fiber in one panel

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Modular MPO/MPOptimate front plate	1-1671373-1

### MPO/MPOptimate coupler Quick-Fit module

#### FEATURES

- Quick-Fit module with 6 x or 12 x MPO coupler
- Port number labeling and additional label strip included
- MPO coupler always used with on one side MPO male and other side MPO female connector

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

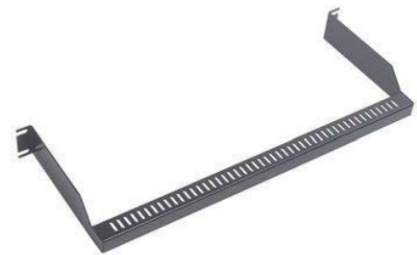
Description	Part Number
6 x MPO coupler module	1671200-1
12 x MPO coupler module	1711987-1

### MPO/MPOptimate back cable manager

#### FEATURES

- 19", 1 U rear cable management bar
- Used for MPO front panels
- 3 depths available
- Applications include new installation and retrofit
- Rear or front of rack or cabinet mount

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Cable management bar 100 mm depth	1711314-1
Cable management bar 175 mm depth	1711314-2
Cable management bar 275 mm depth	1711314-3

# MPO/MPOptimate System

## MPO/MPOptimate Panels & Accessories

### MPO/MPOptimate pull protection sleeve

#### FEATURES

- Re-usable installation pull and protection kit
- IP 67 protection
- Must be ordered separately
- One part number contains 1 x installation sleeve with end cap and 1 x pull sleeve with pull eye
- Does fit to:
  - 12 fiber MPO and MPOptimate trunks with midi fan-out
  - 24 fiber MPO and MPOptimate trunks with midi fan-out
  - 12 x MPO to LC or SC MPO and MPOptimate trunk with midi fan-out
  - 48 fiber MPO and MPOptimate trunks with midi fan-out (use 2055567-2)



**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Protection sleeve kit for 12 and 24 fiber cables	2055567-1
Protection sleeve kit for 48 fiber cables	2055567-2

### Velcro Cable Ties

#### FEATURES

- Hook and loop ties
- No risk of damaging cables
- Releasable and reusable
- An order quantity of one equals one roll of 10 ties



#### ORDERING INFORMATION

Description	Part Number
Velcro Tie 1" x 8" (10pcs.)	1375253-2
Velcro Tie 1" x 12" (10pcs.)	1375254-2

### Adhesive Foam Tape

#### FEATURES

- Protects cable jacket when mounted to panels
- No risk of damaging cables
- Dimensions: 15 mm x 1 mm
- 1 roll of 25 m

#### ORDERING INFORMATION

Description	Part Number
Foam tape 15 mm x 1 mm, 25 m roll	1671961-1

# MPO/MPOptimate System

## Q3000 Series MPO Fiber Panels

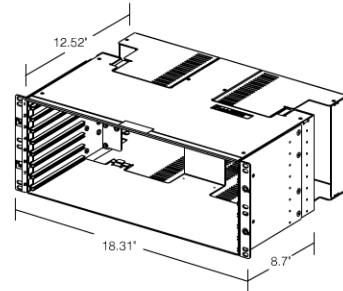
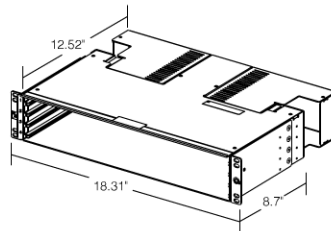
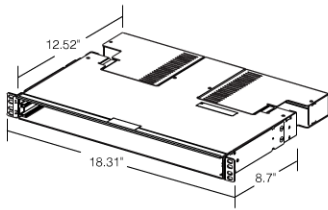
Q3000 Series Fiber Panels are the latest innovation in our High Fiber Count suite of products. The Q3000 Series provides a traditional fiber enclosure to accommodate applications with high density fiber terminations that require easy access to individual connectors and cable management within the panel. The Q3000 series can accommodate LC or MPO applications in singlemode and multimode fiber types

### FEATURES

- Support IEEE 802.3ae, IEEE 802.3ba, IEEE 802.3z
- Exceed ANSI/TIA-568-C.3 and ISO 11801 Edition 2 cabling system requirements
- OM3, OM4, OS1 and OS2
- 19-Inch rack mountable
- Available in 1, 2, and 4U Chassis
- 48 Fiber (24 Duplex LC) LC-to-MPO Blade
- 192 Fiber (16 Port) MPO-to-MPO Blade



### DIMENSIONS



# MPO/MPOptimate System

## Q3000 Series MPO Fiber Panels

### Q3200, Q3400 and Q3800 Chassis (unloaded)

Q3000 Series base chassis fit in any EIA/TIA 19-inch rack or cabinet. They can be loaded with any of the Q3000 or Q4000 series blades based on the application required. An optional door kit can be purchased to provide additional protection to the fiber patch cords exiting the panel.



### ORDERING INFORMATION

Product Description		Part Number
<b>Q3000 series chassis</b>	Q3200; 1U (1.75" x 19" x 15"), accommodates 2 blades	QUCH-1RU
	Q3400; 2U (3.5" x 19" x 15"), accommodates 4 blades	QUCH-2RU
	Q3800; 4U (7" x 19" x 15"), accommodates 8 blades	QUCH-4RU
<b>Front door kits</b>	Q3200; 1U	QDR-1RU
	Q3400; 2U	QDR-2RU
	Q3800; 4U	QDR-4RU

### Q3000 Blades

Q3000 Series blades are offered in LC-MPO, and MPO/MPO adapter only in singlemode, OM3 and OM4. These blades mount in either the Q4000 managed chassis to provide the end-user to upgrade the blade to Q4000 at a later date or into the standard Q3000 base chassis. Each blade is 1/2U in height (0.875 inches).



### ORDERING INFORMATION

Product Description		Part Number
<b>LC to MPO;</b> 24 Duplex LC ports (48 Fibers) distributed from 2 each 12 fiber MPO connectors	Singlemode ultra polish LC-MPO blade	QUFB-48FDLCMSMHR
	OM3 Multimode LC-MPO blade	QUFB-48FDLCMM3HR
<b>MPO to MPO;</b> 16 MPO ports with 12 Fibers each (192 fibers)	Singlemode MPO-MPO blade	QUFB-192FMPOSMHR
	OM3/OM4 Multimode MPO-MPO blade	QUFB-192FMPOMMHR

# MPO/MPOptimate System

## MPO/MPOptimate Cleaning Tools

### MPO/LC/SC/MT-RJ Cassette Cleaners



#### ORDERING INFORMATION

Description	Part Number
MTP/MPO with pins; Packaging: 1	1918802-1
1 Slot Reel Cleaner for MPO/LC/SC and MT-RJ; Packaging: 1	1918803-1
2 Slot reel cleaner for LC and SC; Packaging: 1	1918805-1
Cleaner Refill; Packaging: 6 rolls	1918806-1

### MPO Coupler Cleaner



#### ORDERING INFORMATION

Description	Part Number
MPO IBC; Packaging: 1	1918809-1

### LC/SC bulkhead cleaner



#### ORDERING INFORMATION

Description	Part Number
SC IBC (In Bulkhead Cleaner)	2064499-1
LC IBC (In Bulkhead Cleaner)	2064500-1
LC duplex IBC (In Bulkhead Cleaner)	2111664-1

## 2. MRJ21 System

MRJ21 XG Cassettes & Panels.....	26
MRJ21 XG Trunks & Fan-Outs.....	27
MRJ21 Cassettes & Panels.....	28
MRJ21 Trunks.....	30
MRJ21 Fan-Outs.....	32
MRJ21 Accessories.....	33

# MRJ21 System

## MRJ21 XG Cassettes & Panels

### MRJ21 XG Quick-Fit Cassette 8 Port (10 Gb/s)

#### FEATURES

- Optimal for use in combination with UCP patch panels: plug & play deployment
- Compatible with MRJ21 XG cable assemblies for 10GbE performance
- Front side: 8 x RJ45 jack (2 rows of 4 jacks)
- Rear side: 2 x MRJ21 receptacle
- Factory terminated and tested solution
- For AMPTRAC version of MRJ21 XG Quick-Fit cassette please see page 109 in Chapter 8 Managed Connectivity

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
MRJ21 XG Quick-Fit cassette for 10GBase-T	2153115-1

### MRJ21 XG 19" Patch Panel, 1U, straight

#### FEATURES

- Optimal for use in environments where high density is required
- Factory terminated and tested solution
- Compatible with MRJ21 XG cable assemblies for 10GbE performance
- Straight panel with either 24 or 48 ports on 1U
- For AMPTRAC version of MRJ21 XG 19" panel please see page 109 in Chapter 8 Managed Connectivity

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Straight panel 1U for 10GbE; MRJ21 Plugs: 6; RJ-45 Ports: 24	2153041-1
Straight panel 1U for 10GbE; MRJ21 Plugs: 12; RJ-45 Ports: 48	2153046-1



# MRJ21 System

## MRJ21 XG Trunks & Fan-Outs

### MRJ21 XG to MRJ21 XG trunks

#### FEATURES

- Friendly field installable 10 GbE solution
- Factory terminated and 100% tested solution
- Dense double blade connector with offset jackscrews for latching
- 16 pair shielded cable with AWG 26 solid conductors
- Available with LSZH or CMR sheath

**Color:** white



#### ORDERING INFORMATION

Description	Part Number
MRJ21 XG to MRJ21 XG, 10 Gb/s, 180°-180° back shell; LSZH sheath	Y-2153052-X
MRJ21 XG to MRJ21 XG, 10 Gb/s, 180°-45° back shell; LSZH sheath	Y-2153078-X
MRJ21 XG to MRJ21 XG, 10 Gb/s, 180°-180° back shell; CMR sheath	Y-2111521-X
MRJ21 XG to MRJ21 XG, 10 Gb/s, 180°-45° back shell; CMR sheath	Y-2111522-X

Y- -X	Length
0- -3	3 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m

### MRJ21 XG Fan-Out cable to multiple RJ-45 plugs (shielded)

#### FEATURES

- Friendly field installable 10 GbE solution
- Suitable for use in 3-connector models where 10 GbE application is required
- Factory terminated, 100% tested and serialized
- 16 pair, shielded, AWG 26 solid conductors
- MRJ21 to 4xRJ45 fan-out



#### ORDERING INFORMATION

Description	Part Number
MRJ21 to 4 RJ-45. 180° back shell; LSZH sheath	Y-2153230-X

Y- -X	Length
0- -3	3 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m

# MRJ21 System

## MRJ21 Cassettes & Panels

### MRJ21 Quick-Fit Cassette 12 port (1 Gb/s)

#### FEATURES

- Pre-terminated Quick-Fit cassette
- High Performance TP Cabling for guaranteed application performance
- High-density, small form factor connectivity
- Modular pluggable solution
- Automatic bonding by design



#### ORDERING INFORMATION

Description	Part Number
MRJ21 Quick-Fit cassette for 1000Base-T	1711970-1

### MRJ21 angled patch panel (shielded and unshielded)

#### FEATURES

- High-performance TP cabling for guaranteed application performance
- High-density, small form factor copper connector interface
- Angled panel with 48 ports on 1U
- Factory terminated and tested solution
- Modular, pluggable solution
- Including grounding bolt



**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Angled MRJ21 panel for 1000Base-T; MRJ21 Plugs: 8; RJ-45 Ports: 48	1-1671143-1

# MRJ21 System

## MRJ21 Cassettes & Panels

### MRJ21 patch panel, 1U, straight (shielded)

#### FEATURES

- High performance TP cabling for guaranteed application performance
- High-density, small form factor copper connector interface
- Factory terminated and tested solution
- Straight panel with 24 or 48 ports on 1U
- Modular pluggable solution

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Standard straight panel for 1000Base-T; MRJ21 Plugs: 4; RJ-45 Ports: 24	1711944-1
Standard straight panel for 1000Base-T; MRJ21 Plugs: 8; RJ-45 Ports: 48	1777098-1

### MRJ21 patch panel, 1U, straight (unshielded)

#### FEATURES

- High-performance TP cabling for guaranteed application performance
- High-density, small form factor copper connector interface
- Straight panel with 24 or 48 ports on 1U
- Factory terminated and tested solution
- Modular, pluggable solution

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Standard straight panel for 100Base-T; MRJ21 Plugs: 4; RJ-45 Ports: 48	1435965-1
Standard straight panel for 1000Base-T; MRJ21 Plugs: 8; RJ-45 Ports: 48	1435971-1
Standard straight panel for 1000Base-T; MRJ21 Plugs: 4; RJ-45 Ports: 24	1777029-1

# MRJ21 System

## MRJ21 Trunks

### MRJ21 to MRJ21 cable assemblies (shielded)

#### FEATURES

- Friendly field installable 1 Gbs solution
- Enhanced screening and improved EMC
- Factory terminated and 100 % tested solution
- Dense double blade connector with offset jackscrews for latching
- 1.5 to 4 times the port density of 2 x 6 Stacked Mod Jack (RJ-45)
- 24 pair shielded cable with AWG 24 solid conductors

**Color:** white



Y- -X	Length
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m

#### ORDERING INFORMATION

Description	Part Number
MRJ21 to MRJ21, 180°-180° back shell; LSZH sheath	Y-1711758-X
MRJ21 to MRJ21, 180°-45° back shell; LSZH sheath	Y-1711774-X

### MRJ21 to MRJ21 cable assemblies (unshielded)

#### FEATURES

- Factory terminated and tested solution
- Modular, pluggable solution
- Dense CHAMP style double blade design with offset jackscrew
- Contact layout and footprint for differential pairs creates reduced crosstalk and built-in compensation
- 1.5 to 4 times the port density of 2 x 6 Stacked Mod Jack (RJ-45)
- 3 times the port density of an RJ-21
- Jackscrew for positive latching and secure cable retention

**Color:** gray



Y- -X	Length
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m

#### ORDERING INFORMATION

Description	Part Number
MRJ21 to MRJ21, 180° back shell; CMR sheath	Y-2111366-X
MRJ21 to MRJ21, 180°-45° back shell; CMR sheath	Y-2111371-X

# MRJ21 System

## MRJ21 Trunks

### MRJ21 to MRJ21 ultra slim cable assemblies (unshielded)

#### FEATURES

- Factory terminated and tested solution
- Modular, pluggable solution
- Dense CHAMP style double blade design with offset screw fixing
- Improves uptime and space efficiency on site
- 9,2mm cable OD
- 50-60% less cable mass in pathways and spaces than comparable 4-pair cabling
- 40% less weight than comparable 4-pair cabling
- Gigabit Ethernet Channel performance
- Jackscrews for positive latching and secure cable retention

**Color:** gray



Y- -X	Length
0- -2	2 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m

#### ORDERING INFORMATION

Description	Part Number
MRJ21 to MRJ21 , Ultra slim, 180° back shell; CMR sheath	Y-2111367-X

\* 30 meters application length restrictions apply

# MRJ21 System

## MRJ21 Fan-Outs

### MRJ21 Fan-Out cable to multiple RJ-45 plugs (shielded)

#### FEATURES

- Friendly field installable 1 Gbs solution
- Enhanced screening and improved EMC
- Factory terminated and 100 % tested solution
- Dense double blade connector with offset jackscrews for latching
- 1.5 to 4 times the port density of 2 x 6 Stacked Mod Jack (RJ-45)
- 24 pair shielded cable with AWG 24 solid conductors

**Color:** white



Y- -X	Length
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m

#### ORDERING INFORMATION

Description	Part Number
MRJ21 to 6 RJ-45, 180° back shell; LSZH sheath	Y-1711789-X

### MRJ21 Fan-Out cable to multiple RJ-45 plugs (unshielded)

#### FEATURES

- Factory terminated and tested solution
- MRJ21 to RJ45 hydra cable assemblies are wired so that all 4-pairs of the RJ45 are active for Gigabit Ethernet
- New ergonomic features for easier handling
- Modular, pluggable solution
- Dense CHAMP style double blade design with offset screw fixing
- Contact layout and footprint for differential pairs creates reduced crosstalk and built-in compensation
- 3 times the port density of an RJ-21
- Jackscrews for positive latching and secure cable retention
- Other lengths on request

**Color:** gray



Y- -X	Length
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m

#### ORDERING INFORMATION

Description	Part Number
MRJ21 to 6 RJ-45 for 1000Base-T, 180° back shell; CMR sheath	Y-2111370-X

# MRJ21 System

## MRJ21 Accessories

### UCP Patch Panel Angled and Flushmount

Please refer to Chapter 4, page 48



### MRJ21 cable guiding shelf

#### FEATURES

- 19" 4U shelf with 16 vertical slots
- Each slot accepts max. 8 stacks of MRJ21 cable assemblies
- Tie down capability at the back of the shelf

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
MRJ21 cable guiding shelf	1671175-1

# MRJ21 System

## MRJ21 Accessories

### MRJ21 Back cable manager

#### FEATURES

- 19", 1U rear cable management bar
- Used for MRJ21 or other high density copper or fiber optic panels
- Simple on site assembly
- Applications include new installation and retrofit
- Rear or front of rack or cabinet mount
- 4 depths available
- Tie-down capability on side brackets and back tie-down bar
- Tie-down bar is adjustable for horizontal or vertical cable strain relief



**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Back cable manager 6" (150 mm) depth	1933352-1
Back cable manager 9" (230 mm) depth	1933352-2
Back cable manager 12" (300 mm) depth	1933352-3
Back cable manager 16" (400 mm) depth	1933352-4



### 3. Sigma-Link System

Sigma-Link Quick-Fit Class F <sub>A</sub> .....	36
Sigma-Link Quick-Fit Class E <sub>A</sub> .....	37
Sigma-Link Quick-Fit Class E.....	38
Sigma-Link Quick-Fit Panel.....	39
Sigma-Link Quick-Fit Accessories.....	40

# Sigma-Link Quick-Fit System

Sigma-Link Quick-Fit Class F<sub>A</sub>

## Σ-Link Quick-Fit Cable Assemblies Class F<sub>A</sub> - PL

### FEATURES

- 24 ports per 1U, 6 port links
- Lengths 2-90m
- Factory assembled and 100% tested
- Bundle of 6 x 4 pair solid Category 7<sub>A</sub> S/FTP cable (compliant to IEC 61156-5)
- LSFRZH sheath
- Three different types of far end termination available (housing, loose jacks, open cable ends)
- Housing-to-Housing version features integrated Plastic Optical Fiber (POF) for easy tracing of far end

### Termination guidelines for Σ-Link Housing-to-Open end:

Install jacks with tool (AMP PN 1725150-1) according to instruction sheet 411-93013.

Use following jacks: AMP-TWIST 7<sub>A</sub>S

(AMP PN 1711437-1 without dustcover or 1711441-1 with dustcover)

### Note:

To achieve PL performance cable length should be > 2 m (2 connector model) according to ISO 11801 spec.

### ORDERING INFORMATION

Description	Part Number
Sigma-Link Cable Assembly Housing-to-Housing with POF Class F <sub>A</sub> STP	Y-2153150-X
Sigma-Link Cable Assembly Housing-to-Jacks Class F <sub>A</sub> STP	Y-2153151-X
Sigma-Link Cable Assembly Housing-to-Open End Class F <sub>A</sub> STP	Y-2153152-X



Y- -X	Length
0- -2	2 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m
6- -0	60 m
7- -0	70 m
8- -0	80 m
9- -0	90 m

# Sigma-Link Quick-Fit System

Sigma-Link Quick-Fit Class E<sub>A</sub>

## Σ-Link Quick-Fit Cable Assemblies Class E<sub>A</sub> - PL

### FEATURES

- 24 ports per 1U, 6 port links
- Lengths 2-90m
- Factory assembled and 100% tested
- Bundle of 6 x 4 pair solid Category 7 F/FTP cable
- LSZH sheath
- Four different types of far end termination available (housing, loose jacks, open cable ends, loose plugs)
- Housing-to-Housing version features integrated Plastic Optical Fiber (POF) for easy tracing of far end
- Housing-to-Plugs version for service presentation in mobile Data Centers

### Termination guidelines for Σ-Link Housing-to-Open end:

Install jacks with tool (AMP PN 1725150-1) according to instruction sheet 411-93016.  
Use following jacks: AMP-TWIST 6<sub>A</sub>S  
(AMP PN 1711716-1 without dustcover or 1711592-1 with dustcover).

### Note:

To achieve PL performance cable length should be > 2 m (2 connector model) according to ISO 11801 spec.

### ORDERING INFORMATION

Description	Part Number
Sigma-Link Cable Assembly Housing-to-Housing with PoF Class E <sub>A</sub> STP	Y-2153146-X
Sigma-Link Cable Assembly Housing-to-Jacks Class E <sub>A</sub> STP	Y-2153147-X
Sigma-Link Cable Assembly Housing-to-Open End Class E <sub>A</sub> STP	Y-2153148-X
Sigma-Link Cable Assembly Housing-to-Plugs Class E <sub>A</sub> STP (Only available up to 15 m! Shorter lengths between increments on request.)	Y-2153149-X



Y- -X	Length
0- -2	2 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0*	20 m
2- -5*	25 m
3- -0*	30 m
3- -5*	35 m
4- -0*	40 m
5- -0*	50 m
6- -0*	60 m
7- -0*	70 m
8- -0*	80 m
9- -0*	90 m

\* not applicable for Housing-to-Plugs version

# Sigma-Link Quick-Fit System

## Sigma-Link Quick-Fit Class E

### Σ-Link Quick-Fit Cable Assemblies Class E - PL

#### FEATURES

- 24 ports per 1U, 6 port links
- Lengths 2-90m
- Factory assembled and 100% tested
- Bundle of 6 x 4 pair solid Category 6 U/UTP Cable
- LSZH Sheath
- Three different types of far end termination available (housing, loose jacks, open cable ends)
- Housing-to-Housing version features integrated Plastic Optical Fiber (POF) for easy tracing of far end



#### Termination guidelines for Σ-Link Housing-to-Open end:

Install jacks with tool (AMP PN 0-1725150-1) according to instruction sheet 408-8858

Use following jacks: Cat 6 RJ45 SL 110 connect

(AMP PN 0-1375055-X without dustcover or 0-1375187-X with dustcover)

#### Note:

To achieve PL performance cable length should be > 2 m (2 connector model) according to ISO 11801 spec.

Y- -X	Length
0- -2	2 m
0- -5	5 m
1- -0	10 m
1- -5	15 m
2- -0	20 m
2- -5	25 m
3- -0	30 m
3- -5	35 m
4- -0	40 m
5- -0	50 m
6- -0	60 m
7- -0	70 m
8- -0	80 m
9- -0	90 m

#### ORDERING INFORMATION

Description	Part Number
Sigma-Link Cable Assembly Housing-to-Housing with POF Class E UTP	Y-2153140-X
Sigma-Link Cable Assembly Housing-to-Jacks Class E UTP	Y-2153141-X
Sigma-Link Cable Assembly Housing-to-Open End Class E UTP	Y-2153142-X

## Sigma-Link Quick-Fit System

Sigma-Link Quick-Fit Panel

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### UCP Patch Panel Angled and Flushmount

Please refer to Chapter 4, page 48



# Sigma-Link Quick-Fit System

## Sigma-Link Quick-Fit Accessories

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### Σ-Link identifier lamp

#### FEATURES

- Identifies the far end of the installed link
- Easy mounting on the housings



#### ORDERING INFORMATION

Description	Part Number
Sigma-Link identifier lamp; blue LED	1-1671330-1

## 4. Mixed Media Platform

### NETpodium

Rack & Doors.....	42
Panels & Covers.....	43
Accessories.....	44

### In-cabinet Management

Accessories.....	46
------------------	----

### Universal Connectivity Platform

Patch Panels.....	48
Mounting Accessories.....	49
FiberGuide Mounting Accessories.....	50

# Mixed Media Platform

## NETpodium - Rack & Doors

### NETpodium Rack

#### FEATURES

- Dimensions W x D x H = 1000 x 600 x 2200mm
- 45U
- 2 x 45U Cable managers included
- 2 large vertical cable ducts included
- Universal 19" Mounting rails according EIA 310

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
NETpodium Cross-Connect Rack 1000x600	1-1671405-1



### Front Doors

#### FEATURES

- Pair of non-perforated doors (left and right)
- Aluminium construction, lightweight yet rigid
- Easy mounting/removal from NETpodium frame, allowing agile installation
- Main Front Doors:
  - One pair covers complete front area of rack
  - Each door double-hinged and pivots both ways (for maximum access during MAC's or installation)
  - Supplied with locks, allowing for secure deployment
- Vertical Pathway Doors:
  - Cover the cords inside the lateral vertical patch bays (for increased physical cable protection)
  - Single hinged, pivoting on the outside edge of NETpodium frame

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Main Front Doors (Pair)	1-1671545-1
Vertical Pathway Doors (Pair)	2269019-1





# Mixed Media Platform

## NETpodium - Panels & Covers

### Side Panel

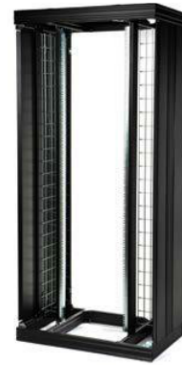
#### FEATURES

- Solid aluminum side panel to cover the sides of the cabinet
- Easy to add and remove

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Side Panel Left	1-1671578-1
Side Panel Right	1-1671578-2



### Back Panel

#### FEATURES

- Solid aluminum back panel to cover the backside of the cabinet
- Easy to remove

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Back Panel	1-1671579-1
Back Panel with backstrip	1-1671579-2



### Top Cover

#### FEATURES

- Aluminum top panel with 4 knock-out access ports for optimal cabling access

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Top Cover	1-1671555-1



### Bottom Cover

#### FEATURES

- Aluminum bottom panel to block airflow

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Bottom Cover	1-1671554-1



# Mixed Media Platform

## NETpodium - Accessories

### Baying Kit

#### FEATURES

- Kit to be used to attach and secure two NETpodium racks side-by-side or back-to-back

**Color:** galvanized

#### ORDERING INFORMATION

Description	Part Number
Baying Kit (12 pcs)	1-1671587-1



### Overhead Cabling Pathway

#### FEATURES

- Overhead cabling pathway, including bend radius control for both balanced copper cabling and fiber optic cabling
- A cost effective way of routing cords from one cabinet to an adjacent cabinet
- Dim holes: 185 x 175mm
- Max capacity = +/- 120 cables with 9mm OD

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Overhead Cabling Pathway	1-1671508-1



### 4U Pass Through Channel

#### FEATURES

- 4U pass through channel designed to fit at the bottom of a NETpodium rack
- Allows intra-cabinet patching inside the NETpodium rack
- Only fits in NETpodium rack

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Pass Through Channel	1671614-1



## Mixed Media Platform

### NETpodium - Accessories

#### FO Slack Storage Spools

##### FEATURES

- Provides overlength capacity for FO cords
- Enables the use of 1 length FO cords in a rack

**Color:** black (RAL 9005)



##### ORDERING INFORMATION

Description	Part Number
FO Slack Storage Spools (Left + Right)	1-1671610-1

#### NETpodium Copper Cable Dividing plate

##### FEATURES

- Designed for X-Connect patching to divide 2 and 4m length of copper cords

**Color:** black (RAL 9005)

##### ORDERING INFORMATION

Description	Part Number
NETpodium Copper Cable Dividing plate	1671933-1



#### NETpodium bracket for wire basket

##### FEATURES

- Bracket to be used onto the wire basket
- Accepts additional accessories

**Color:** galvanized

##### ORDERING INFORMATION

Description	Part Number
NETpodium bracket for wire basket (4pcs)	1671938-2



#### End Caps

##### FEATURES

- Cap to cover the aluminum profile

**Color:** black (RAL 9005)

##### ORDERING INFORMATION

Description	Part Number
End Cap (8pcs)	1-1671609-1



## Mixed Media Platform

### In-Cabinet Management - Accessories

#### High-Density Front-Loading Cable Managers for Cabinets

##### FEATURES

- Offers bend radius (according to ISO/IES 11801:2002 table 25) and mechanical protection
- Rubber entry/exit retainers ensure cable captivity preventing accidental disturbance of patch cords
- Suitable for Twisted Pair & Fiber Optic patch cords
- Note: To get a left/right pair order the respective part number twice (higher MOQs may apply)!

**Color:** black (RAL 9005)

##### ORDERING INFORMATION

Description	Part Number
High-Density Front-Loading Cable Managers 1U	1671495-1
High-Density Front-Loading Cable Managers 2U	1671495-2
High-Density Front-Loading Cable Managers 4U	1671495-4
High-Density Front-Loading Cable Managers 6U	1671495-6
High-Density Front-Loading Cable Managers 15U	1-1671495-5



#### Horizontal Slack Storage Panel

##### FEATURES

- 4U storage panel to store copper overlength in a copper X-connect configuration
- Allows left or right cable entry
- Hinged access cover ensures accessibility and security of installed patch cords

**Color:** black (RAL 9005)

##### ORDERING INFORMATION

Description	Part Number
Horizontal Slack Storage Panel	1671711-1



#### 2U Pass Through Duct

##### FEATURES

- 2U pass through duct
- Allows left to right side patching as well as front to back patching and intra-cabinet patching
- Hinged access cover ensures accessibility of installed Patch Cords

**Color:** black (RAL 9005)

##### ORDERING INFORMATION

Description	Part Number
2U pass through duct	1-1671080-2



# Mixed Media Platform

## In-Cabinet Management - Accessories

### 1U Blanking Plates

#### FEATURES

- 1U blind panels
- Angled version to fill gaps between angled panels
- Straight version to fill gaps between straight panels or active equipment

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
1 U blind panel angled	1671113-1
1 U blind panel straight	1671113-2

### 1 U Cable Management Panels 19"

#### FEATURES

- Panels mount to the front of 19" racks and provide for the orderly dressing and routing of cable assemblies
- Various ring lengths available
- 1 U high

**Note:** PN 1859160-1 is optimized to be used with panels incl. Quick-Fit modules



#### ORDERING INFORMATION

Description	Part Number
4 rings; light gray (RAL 7035); Height: 1 U; Ring length: 60 mm	9-101019-0
5 rings; black (RAL 9005); Height: 1 U; Ring length: 95 mm	558329-1
5 rings black (RAL 9005)	1859160-1

### Mounting Hardware

#### FEATURES

- Hardware to attach panels and equipment to racks and cabinets
- Packaging quantity: 50 and 500

#### ORDERING INFORMATION

Description	Part Number
Screw set (50 pcs) M6	1671147-1
Screw set (500 pcs) M6	1671147-2
Screw set (500 pcs) M6 + cage nuts	1671147-4
Screw set (50 pcs) M6 + cage nuts	1671147-3



M6



M6 + Cage Nuts

# Mixed Media Platform

## Universal Connectivity Platform - Patch Panels

### UCP Patch Panel Angled and Flushmount

#### FEATURES

- 19" 1U unloaded modular patch panel with support for 4 Quick-Fit Modules
- Angled and flush style panels available
- Modular, rear cable management for both horizontal Copper and Fiber cables
- Accepts Pre-terminated Cu or FO cassettes or Field-terminated Copper modules
- Including grounding bolt



**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
UCP Patch Panel 1U Angled	1-1671590-1
UCP Patch Panel 1U Flush	1-1671594-1

### Xtra-U Fiber Panel with Cable Management

#### FEATURES

- 3U Bracket to support a single MPOptimate Quick-Fit cassette
- Management rings to store and protect excess MPOptimate trunk cables
- Including grounding bolt

**Color:** black (RAL 9005)



#### ORDERING INFORMATION

Description	Part Number
Xtra-U Fiber Panel with Cable Management (for standard racks)	1-1671547-1
Xtra-U Fiber Panel with Cable Management (for NETpodium rack)	1-1671550-1

### Xtra-U Copper Panel without Cable Management

#### FEATURES

- 3U Bracket to support a single Copper Quick-Fit cassette or module
- Including grounding bolt

**Color:** black (RAL 9005)

#### ORDERING INFORMATION

Description	Part Number
Xtra-U Copper Panel without Cable Management (for standard racks)	1-1671548-1
Xtra-U Copper Panel without Cable Management (for NETpodium rack)	1-1671551-1



# Mixed Media Platform

## Universal Connectivity Platform - Mounting Accessories

### Xtra-U Vertical Panel Mounting Brackets

#### FEATURES

- Bracket set to install a 1U 19" panel vertically outside of the 19" area of a cabinet/rack
- Available for 1U

**Color:** galvanized

#### ORDERING INFORMATION

Description	Part Number
Xtra-U Vertical Panel Mounting Brackets (2 pcs) (for standard racks)	1-1671549-1
Xtra-U Vertical Panel Mounting Brackets (2 pcs) (for NETpodium rack)	1-1671552-1



### Xtra-U Subfloor Panel Holder Kit

#### FEATURES

- Bracket set to install 19" panels in the false floor area underneath cabinets/racks
- Suitable for Copper and Fiber installations
- Allows up to 630mm gap between support pillars
- Attachable to support pillars with round or square cross-section (diameters from 14 to 30mm)
- Available for 1, 2 or 4U

**Color:** galvanized

#### ORDERING INFORMATION

Description	Part Number
Xtra-U Subfloor Panel Holder Kit 1U	1671189-1
Xtra-U Subfloor Panel Holder Kit 2U	1671189-2
Xtra-U Subfloor Panel Holder Kit 4U	1671189-4



### Xtra-U Aerial Panel Holder Kit for Wire Mesh Cable Trays

#### FEATURES

- Universal bracket for installing 19" patch panels above cabinets /racks
- Can be attached to wire mesh cable trays
- 2U and 4U version available

**Color:** galvanized

#### ORDERING INFORMATION

Description	Part Number
Xtra-U Aerial Panel Holder Kit (2U) for Wire Mesh Trays	1-1671603-1
Xtra-U Aerial Panel Holder Kit (4U) for Wire Mesh Trays	1-1671603-2



# Mixed Media Platform

## Universal Connectivity Platform - FiberGuide Mounting Accessories

### Xtra-U FiberGuide System Quick-Fit adaptor

**FEATURES:**

- Fits to FGS products, s.a. 4" Express Exits, 4 x 4 Downspouts
- Can accommodate up to 2 Quick-Fit MPO cassettes or modules
- Integrated strain relief feature
- Including grounding bolt

**Color:** galvanized



**ORDERING INFORMATION**

Description	Part Number
Xtra-U FGS Quick-Fit adaptor	1-1671618-1

### Xtra-U Aerial Panel Holder Kit for FiberGuide System

**FEATURES**

- Universal bracket for installing 19" patch panels above cabinets /racks
- Can be attached to FGS channels (4 x 4, 4 x 6 and 4 x 12)
- 2U and 4U version available

**Color:** galvanized



**ORDERING INFORMATION**

Description	Part Number
Xtra-U Aerial Panel Holder Kit (2U) for FGS	1-1671603-3
Xtra-U Aerial Panel Holder Kit (4U) for FGS	1-1671603-4