

# Fiber Optic Connectivity

10G / 40G / 100G

Enclosures  
Pre-configured

Patch Cords  
Bundled + Labeled

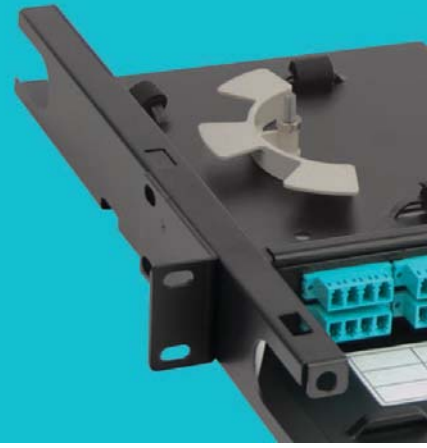
Built to Order

Built to Spec

**CABLESYS**<sup>®</sup>  
Cabling Systems Simplified

# Our Mission

At Cablesys, our mission is to simplify cabling systems for your data center projects. We take complex fiber systems and make them **EASY** to order and **EASY** to install. Our fiber systems are assembled in California according to your spec. They are ready to go, right out of the box when you receive them.



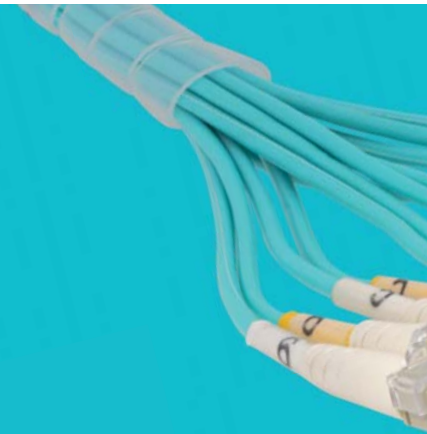
## Enclosures

- Connectivity is pre-configured into every enclosure
- **EASY** to order with no guessing
- Install in a few **SIMPLE** steps with one screw driver



## Patch Cords

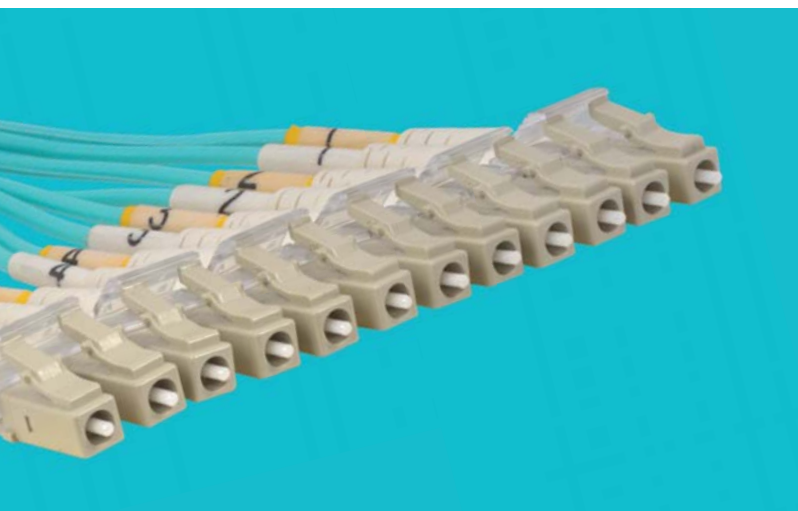
- Pre-terminated, tested, bundled and labeled
- **EASY** to pull and **EASY** to identify
- No need to open multiple packages, untangle cables or print labels



## Built to Order, Built to Spec

- Specify configuration, length, color, performance and more
- Pre-sort products into kits so they are **EASY** to allocate





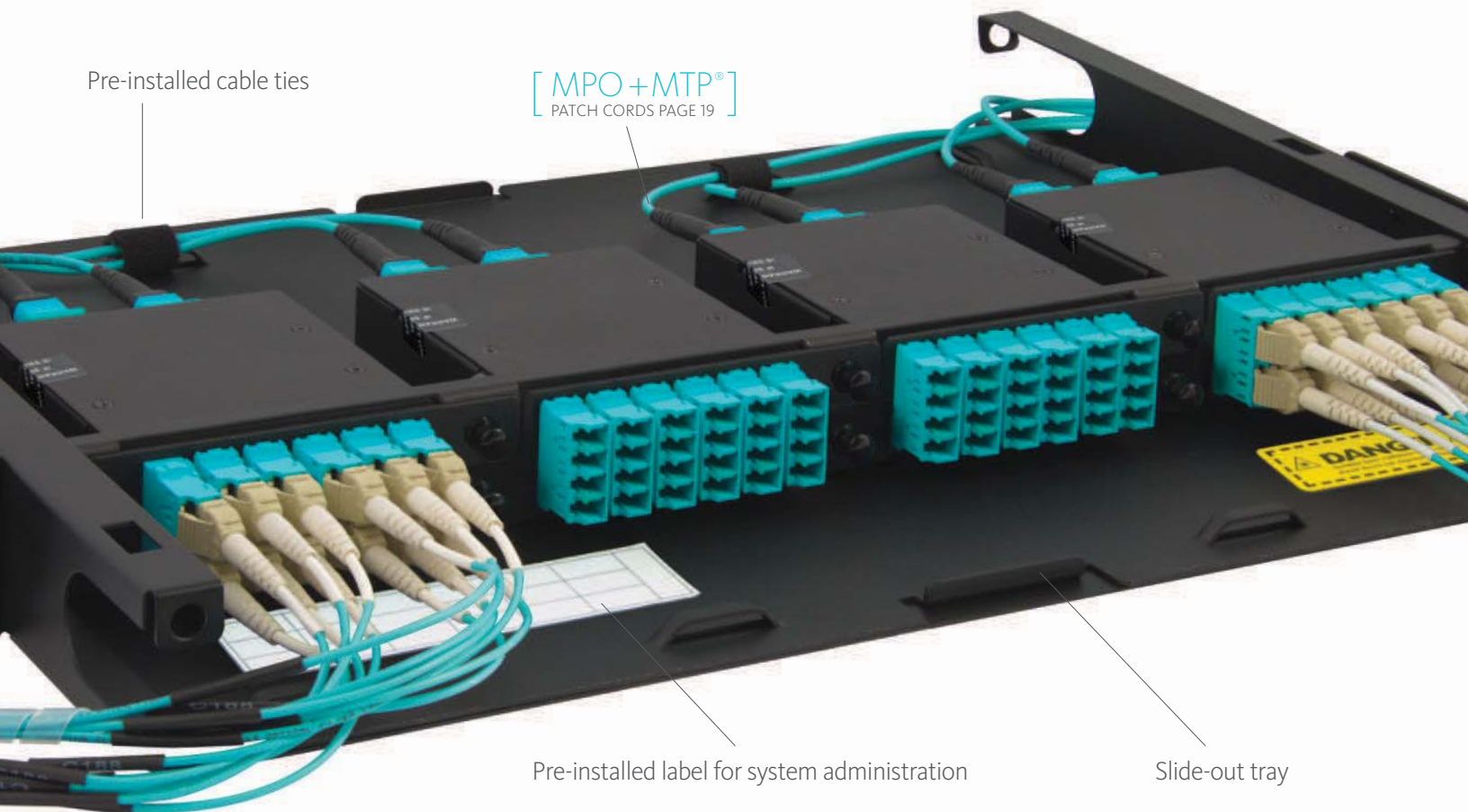
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# High Density [HD] Rack Mount Enclosures

- Comes with HD adapter panels or MPO cassettes
- Multimode: adapter panels OM3/OM4, MPO cassettes OM3
- Meets or exceeds all TIA-568-C.3 requirements
- Fits on racks and cabinets with 19 inch mounting widths
- Made with 20 gauge steel, powder-coated black
- Slide-out tray with removable front and rear covers
- Front and rear side openings for cable to enter and exit
- Provides a safe and clean environment for fiber



## LC ENCLOSURES



LC-MPO [A]



LC-MPO [B]



LC [C]



LC [D]

## SC ENCLOSURES



SC-MPO [E]



SC-MPO [F]



SC [G]



SC [H]

LC ENCLOSURES			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[A] 4 MPO cassettes	96 LC front, 8 MPO rear	1	GHF7318804
[B] 8 MPO cassettes	192 LC front, 16 MPO rear	2	GHF7328808
[C] 4 adapter panels	96 LC	1	GHF7318304
[D] 8 adapter panels	192 LC	2	GHF7328308

SC ENCLOSURES			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[E] 4 MPO cassettes	48 SC front, 4 MPO rear	1	GHF7318604
[F] 8 MPO cassettes	96 SC front, 8 MPO rear	2	GHF7328608
[G] 4 adapter panels	48 SC	1	GHF7318104
[H] 8 adapter panels	96 SC	2	GHF7328108

\* 1 RMS [rack mount space] = 1.75" height

## SPLICE TRAY

Splice tray with fusion splice holder for 12 fibers [See page 23]

GHF7927012

Don't see the configurations you need? We can build to your spec. Talk to us!

# Standard Rack Mount Enclosures

- Comes with LGX® compatible adapter panels or MPO cassettes
- Multimode: adapter panels OM3/OM4, MPO cassettes OM3
- Meets or exceeds all TIA-568-C.3 requirements
- Fits on racks and cabinets with 19 inch mounting widths
- Made with 20 gauge steel, powder-coated black
- Slide-out tray with removable front and rear covers
- Front and rear side openings for cable to enter and exit
- Provides a safe and clean environment for fiber

## LC ENCLOSURES



LC-MPO [A]

## SC ENCLOSURES

[ MPO + MTP® ]  
PATCH CORDS PAGE 19



SC-MPO [G]



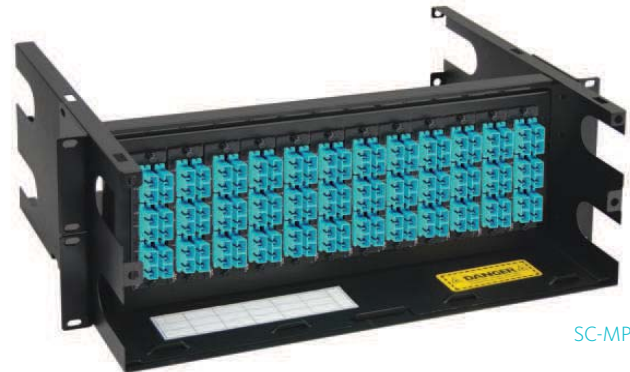
LC-MPO [B]



SC-MPO [H]



LC-MPO [C]



SC-MPO [I]



LC [D]

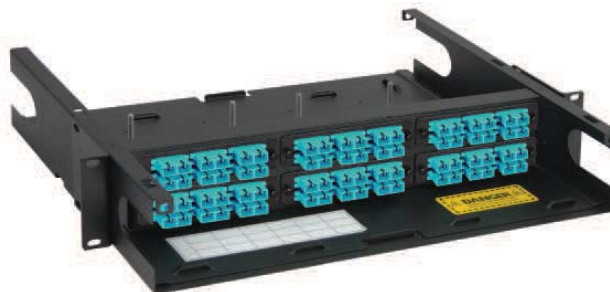


SC [J]





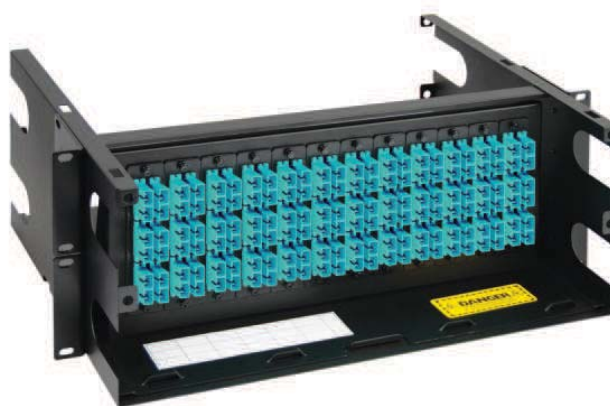
LC [E]



SC [K]



LC [F]



SC [L]

LC ENCLOSURES			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[A] 3 MPO cassettes	72 LC front, 6 MPO rear	1	GHF7317803
[B] 6 MPO cassettes	144 LC front, 12 MPO rear	2	GHF7327806
[C] 12 MPO cassettes	288 LC front, 24 MPO rear	4	GHF7347812
[D] 3 adapter panels	72 LC	1	GHF7317303
[E] 6 adapter panels	144 LC	2	GHF7327306
[F] 12 adapter panels	288 LC	4	GHF7347312

SC ENCLOSURES			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[G] 3 MPO cassettes	36 SC front, 3 MPO rear	1	GHF7317603
[H] 6 MPO cassettes	72 SC front, 6 MPO rear	2	GHF7327606
[I] 12 MPO cassettes	144 SC front, 12 MPO rear	4	GHF7347612
[J] 3 adapter panels	36 SC	1	GHF7317103
[K] 6 adapter panels	72 SC	2	GHF7327106
[L] 12 adapter panels	144 SC	4	GHF7347112

EMPTY ENCLOSURES		
3 panel, 1 RMS*, Part No. GHF7317003	6 panel, 2 RMS*, Part No. GHF7327006	12 panel, 4 RMS*, Part No. GHF7347012

\* 1 RMS [rack mount space] = 1.75" height

SPLICE TRAY	
Splice tray with fusion splice holder for 12 fibers [See page 23]	GHF7927012

Don't see the configurations you need? We can build to your spec. Talk to us!

## High Density [HD] Patch Panels

- Patch panels come with LC style connectors built-in
- Multimode: adapters OM3/OM4, MPO cassettes OM3
- Optimized adapter spacing makes patching jumpers easy
- Optional brackets help support cable on the front and rear
- Loaded with TIA/EIA-604 FOCIS compliant adapters
- 16 gauge steel frame, powder-coated black
- Comes with protective caps to prevent dust from entering
- Fits on racks and cabinets with 19 inch mounting widths

Maximum fiber count of 96 LC in one rack mount space

Durable steel frame with open area for labeling



Fiber is pre-terminated inside the cassette



[ MPO+MTP® ]  
PATCH CORDS PAGE 19



LC-MPO  
PATCH PANEL

Front

Rear



LC-MPO [A]

LC  
PATCH PANEL

Front

Rear



LC [B]



[C]



[D]

LC PATCH PANELS			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[A] 4 LC quad MPO cassette	96 LC front, 8 MPO rear	1	GHFPAJGP24
[B] 24 LC quad adapters	96 LC	1	GHFPAJPB36
* 1 RMS [rack mount space] = 1.75" height			
CABLE MANAGEMENT BRACKETS			
[C] 3" depth, front extended bracket			GHFPAMF003
[D] 5" depth, rear extended bracket			GHFPAMR005

Don't see the configurations you need? We can build to your spec. Talk to us!

## Standard Wall Mount Enclosures

- Comes with LGX® compatible adapter panels or MPO cassettes
- Multimode: adapter panels OM3/OM4, MPO cassettes OM3
- Meets or exceeds all TIA-568-C.3 requirements
- For small installations at a remote indoor location
- Made with 18 gauge steel, powder-coated black
- Swing-out door with lock and key for security
- Cable entry and exits on top and bottom
- Provides a safe and clean environment for fiber





LC-MPO [A]



SC-MPO [C]



LC [B]



SC [D]

LC ENCLOSURES			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[A] 4 MPO cassettes	96 LC front, 8 MPO rear	1	GHF7517804
[B] 4 adapter panels	96 LC	1	GHF7517304

SC ENCLOSURES			PART NO.
CONNECTOR TYPE	FIBERS	RMS*	
[C] 4 MPO cassettes	48 SC front, 4 MPO rear	1	GHF7517604
[D] 4 adapter panels	48 SC	1	GHF7517104

EMPTY ENCLOSURE			
4 panel, 10.86" H x 13" W x 3.76" D			GHF7517004

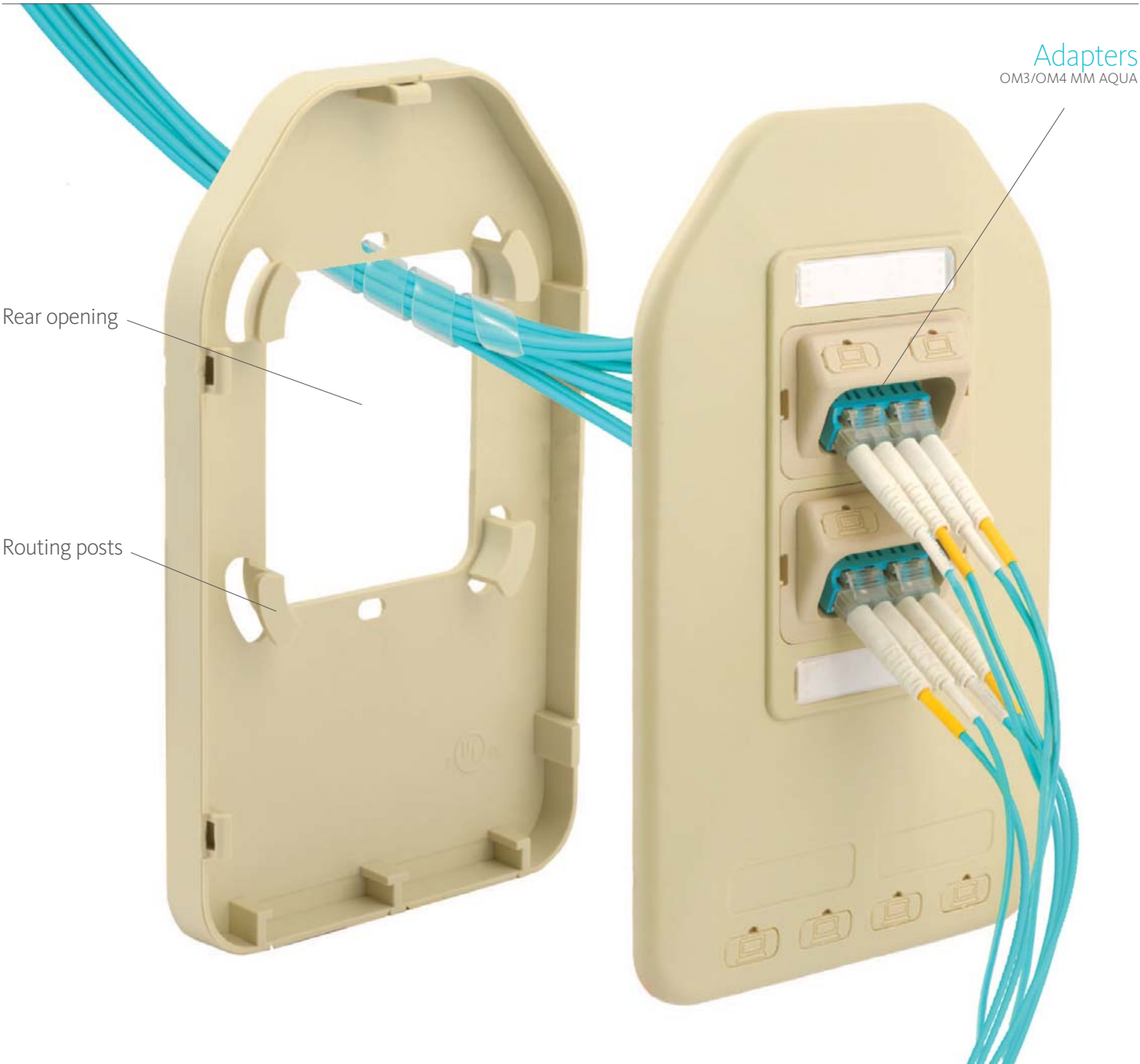
SPLICE TRAY			
Splice tray with fusion splice holder for 12 fibers [See page 23]			GHF7927012

Don't see the configurations you need? We can build to your spec. Talk to us!



# Front-Feed Network Interface Outlets [NIOs]

- Supports up to eight LC fibers at the front allowing fiber to enter and exit at a 45 degree angle
- Consolidates and distributes fiber to the Work Area
- Loaded with TIA/EIA-604 FOCIS compliant adapters
- Mounting complies with NEMA's standard size for single gang electrical boxes

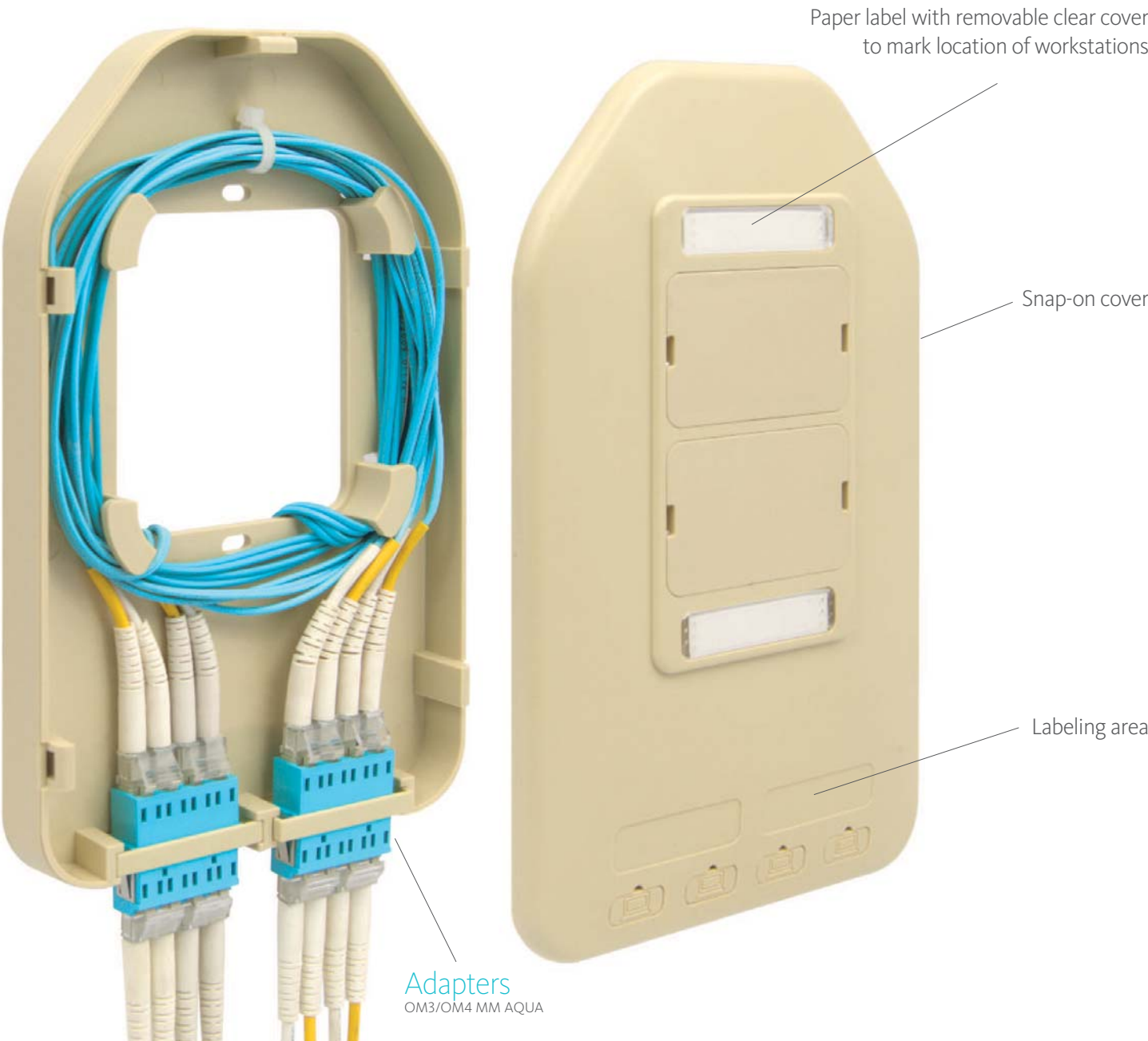


LC OUTLET			PART NO.
CONNECTOR TYPE	FIBERS	HOUSING COLOR	
2 LC quad adapters angled	8 LC	Ivory	GHF77LCP54

Don't see the configurations you need? We can build to your spec. Talk to us!

# Base-Feed Network Interface Outlets [NIOs]

- Supports up to eight LC fibers at the bottom allowing fiber to enter and exit vertically in tight spaces
- Consolidates and distributes fiber to the Work Area
- Loaded with TIA/EIA-604 FOCIS compliant adapters
- Mounting complies with NEMA's standard size for single gang electrical boxes



LC OUTLET			PART NO.
CONNECTOR TYPE	FIBERS	HOUSING COLOR	
2 LC quad adapters low-profile	8 LC	Ivory	GHF77LCP34

Don't see the configurations you need? We can build to your spec. Talk to us!

# Standard MPO Cassettes

- Fits in LGX® compatible rack and wall mount enclosures
- Designed with push and pull fasteners for easy installation
- Pre-terminated to eliminate the need for field termination
- No splicing, polishing or testing required
- Factory terminated and tested per IEEE 802.3ae 10 GbE
- Low Insertion Loss; <0.3dB LC and <0.5dB MPO
- Test results are included

Proper Ways to Connect to MPO

Female MPO jumper



Multimode MPO cassettes are equipped with male MPO connectors and require female MPO jumpers to be installed on the opposite end.

APC female MPO jumper



Singlemode MPO cassettes are equipped with MPO/APC connectors and require MPO/APC jumpers for proper connection and to prevent damage.

## MPO Cassettes

OM3 MM AQUA

[ MPO + MTP® ]  
PATCH CORDS PAGE 19



Front



Rear

LC-MPO [A]



Front



Rear

LC-MPO [B]



Front



Rear

SC-MPO [C]

MPO CASSETTES			PART NO.
CONNECTOR TYPE	FIBERS	SLEEVE	
[A] 6 LC quad adapters	24 LC front, 2 MPO rear	Metal	GHFCLCGD24
[B] 3 LC quad adapters	12 LC front, 1 MPO rear	Metal	GHFCLCGD12
[C] 6 SC duplex adapters	12 LC front, 1 MPO rear	Metal	GHFCSCGD12

Note: cassette style may vary.

Don't see the configurations you need? We can build to your spec. Talk to us!



# Standard Adapter Panels

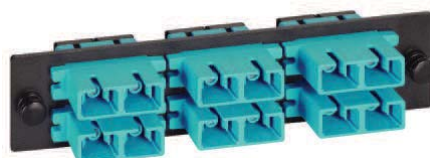
- Fits in LGX® compatible rack and wall mount enclosures
- Loaded with TIA/EIA-604 FOCIS compliant adapters
- Provides system modularity for easy moves, adds and changes [MACs]
- Designed with push and pull fasteners for easy installation and removal

## Adapter Panels

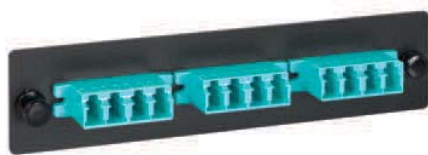
OM3/OM4 MM AQUA



LC [A]



SC [D]



LC [B]



MPO [E]

[ MPO+MTP® ]  
PATCH CORDS PAGE 19



LC [C]



[F]

ADAPTER PANELS			PART NO.
CONNECTOR TYPE	FIBERS	SLEEVE	
[A] 6 LC quad adapters	24 LC	Metal	GHFCLCPB34
[B] 3 LC quad adapters	12 LC	Metal	GHFCLCPB72
[C] 6 LC duplex adapters	12 LC	Metal	GHFCLCPB32
[D] 6 SC duplex adapters	12 SC	Metal	GHFCLCPB32
[E] 6 MPO adapters	72 MPO	None	GHFCMP8832
[F] Blank to fill unused spaces	None	None	GHFC668800

Note: adapter panel style may vary.

Don't see the configurations you need? We can build to your spec. Talk to us!

## How to Maximize Port Density in Enclosures

### LC Quad Adapters

for high density port spacing



**24**  
ports

**50%**  
increase in  
density

### LC Duplex Adapters

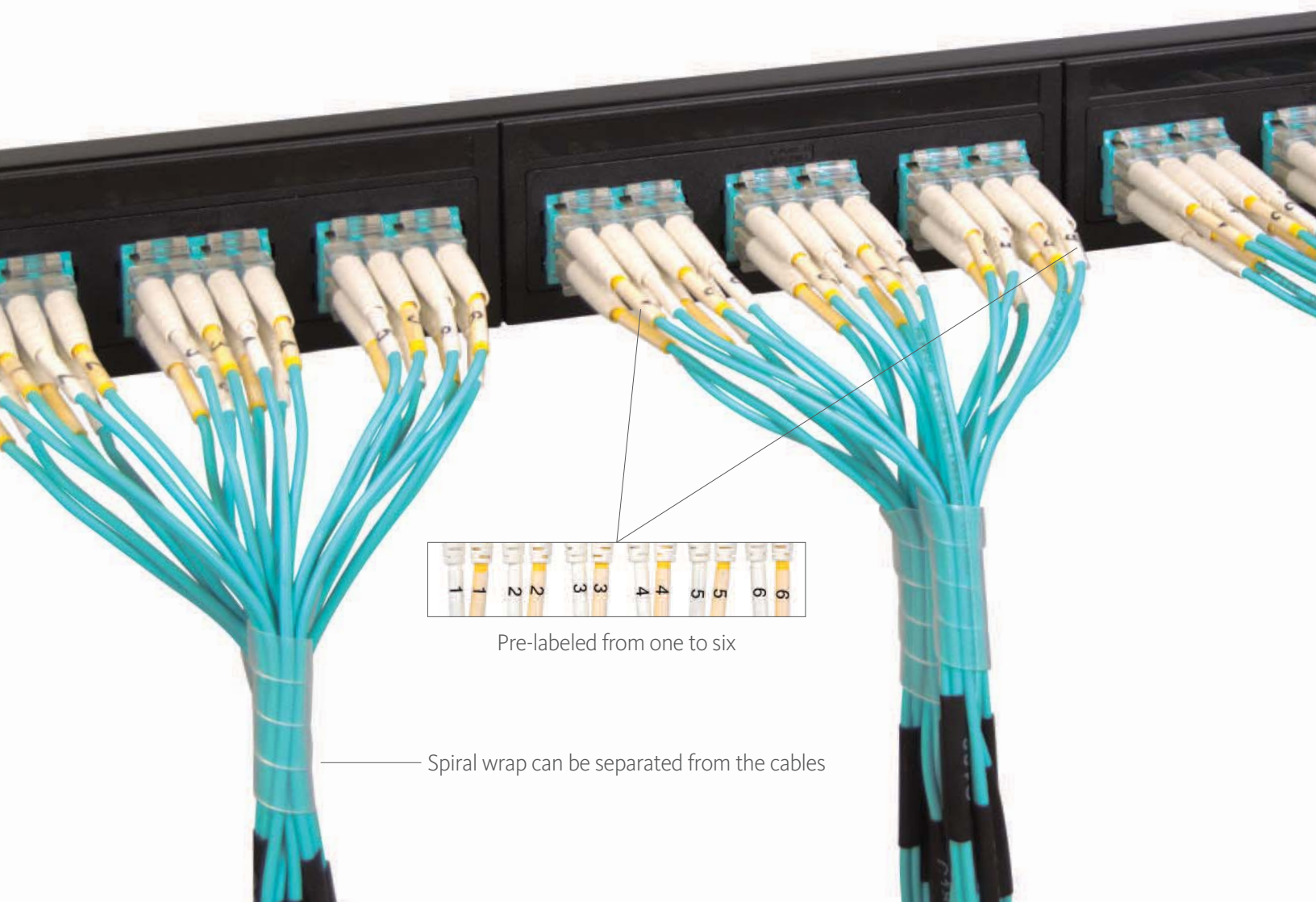
for standard port spacing



**12**  
ports

## Bundle6™ Patch Cords

- Six patch cords pre-bundled and packaged in a box
- Bundling helps route cables with one pull
- Saves time from opening multiple packages
- Spiral wrap can easily be separated from cables
- Complies with TIA-492AAAC OM3 standard
- Exceeds ANSI/TIA 568-C.3 performance standard
- Complies with IEEE 802.3 and IEC-60793-2-10 standards
- Made with bend-insensitive multimode fiber in AB to BA polarity



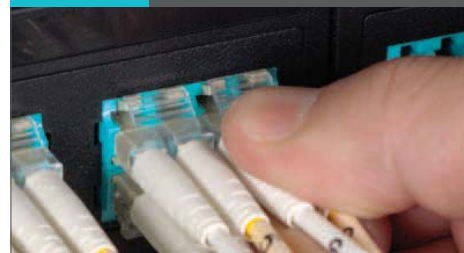
**Step 1** Open package.

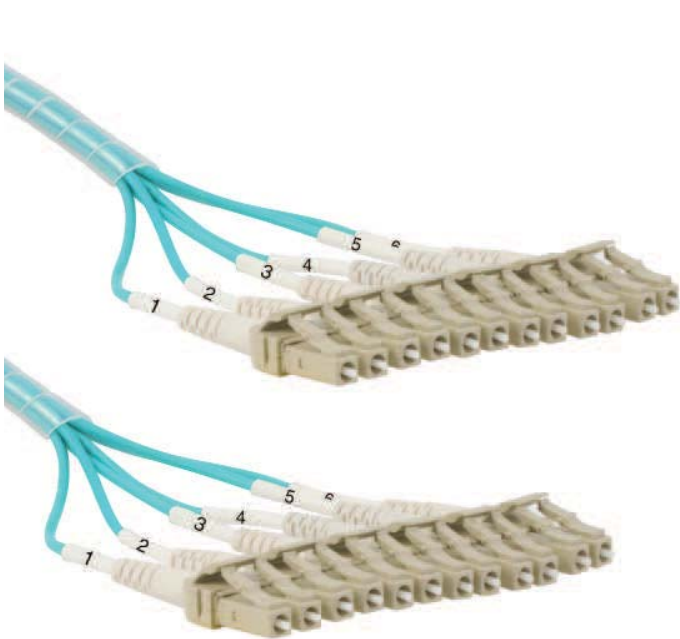


**Step 2** Run six cables at once.

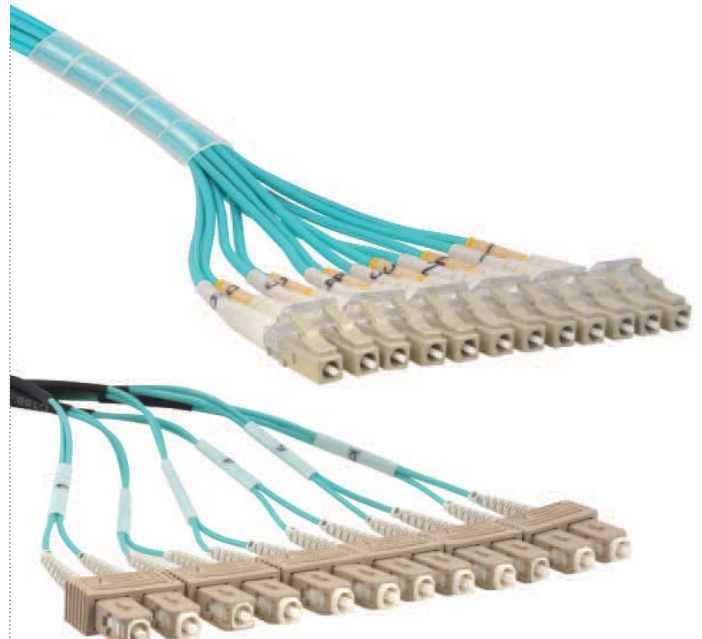


**Step 3** Patch and you're done!

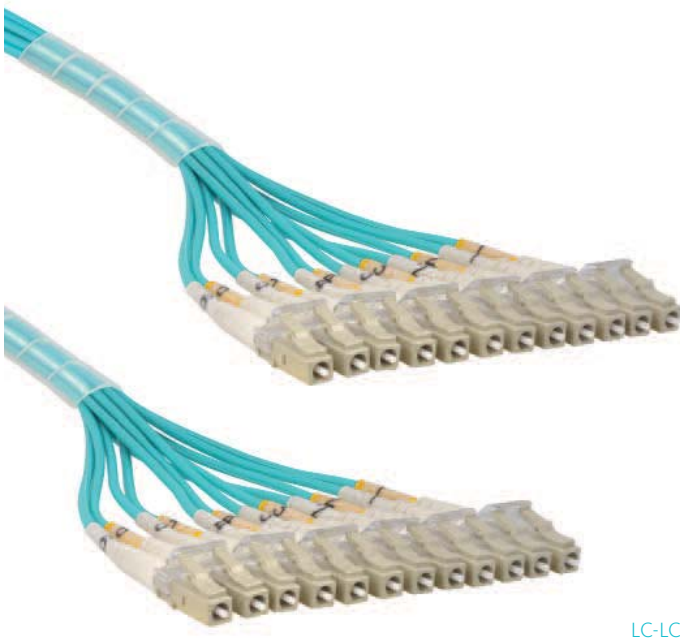




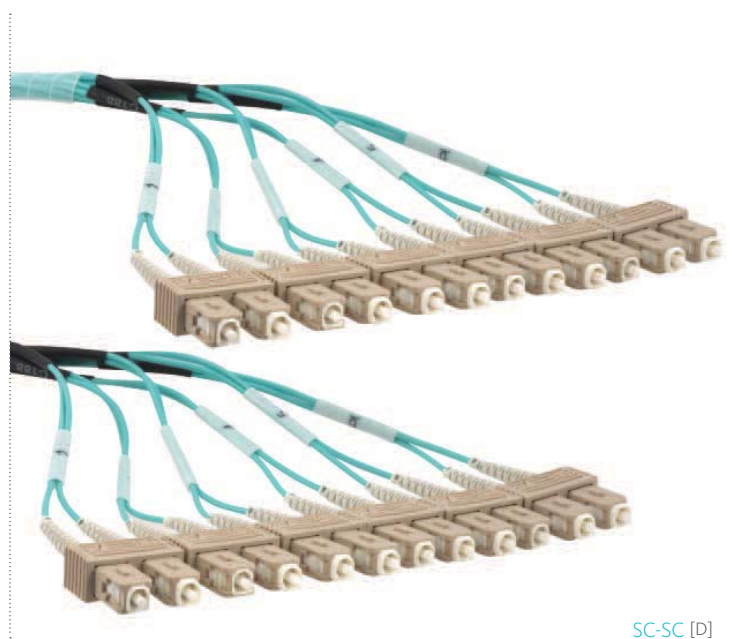
LC-LC Uniboot [A]



LC-SC [C]



LC-LC [B]



SC-SC [D]

BUNDLE6™ PATCH CORDS				PART NO.
CONNECTOR TYPE	FIBERS	RATING	JACKET TYPE	
[A] 6 LC to LC duplex Uniboot	12	OM4 LOMMF 50 µm	LSZH	G6FAZBBQxx-M*
6 LC to LC duplex Uniboot	12	OM3 LOMMF 50 µm	OFNR	G6FGZBBLxx-M*
[B] 6 LC to LC duplex	12	OM3 LOMMF 50 µm	OFNR	G6FGZLLLxx-M*
[C] 6 LC to SC duplex	12	OM3 LOMMF 50 µm	OFNR	G6FGZCCLxx-M*
[D] 6 SC to SC duplex	12	OM3 LOMMF 50 µm	OFNR	G6FGZCCLxx-M*

\*xx [length in meters, 1m = 3.28 feet] = 01 ~ 15m in stock with 1m increment.

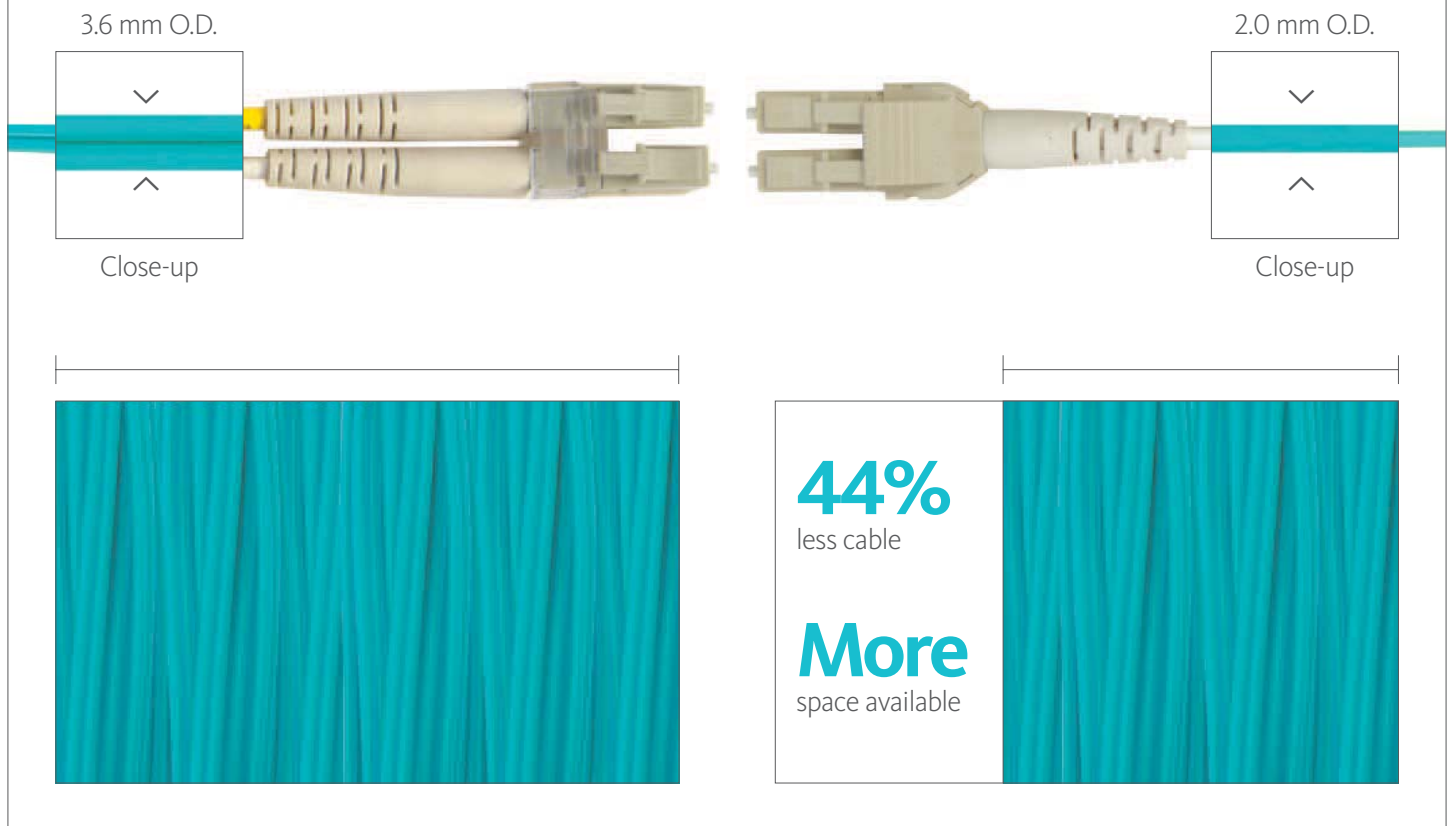
Don't see the configurations you need? We can build to your spec. Talk to us!



## Standard Patch Cords

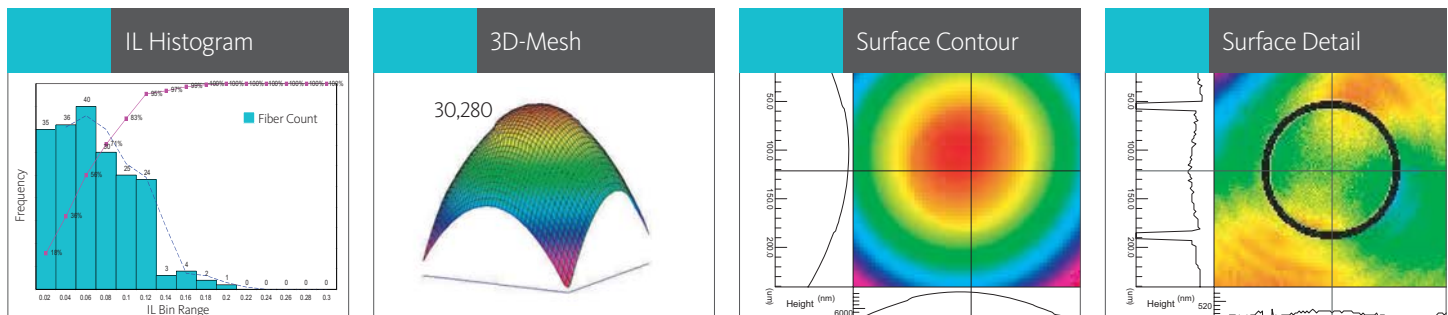
- Made with bend-insensitive fiber in AB to BA polarity
- Complies with IEEE 802.3 and IEC-60793-2-10 standards
- Complies with TIA-492AAAC OM3 and TIA-492AAD OM4
- Laser optimized 10/40/100G for OM3 and OM4 networks
- Exceeds TIA 568 performance requirements
- Tested with an average Insertion Loss of 0.2 dB
- Beats the industry's average Insertion Loss of 0.75 dB

## Duplex vs. Uniboot



## Tested up to $\leq 0.1$ dB Insertion Loss

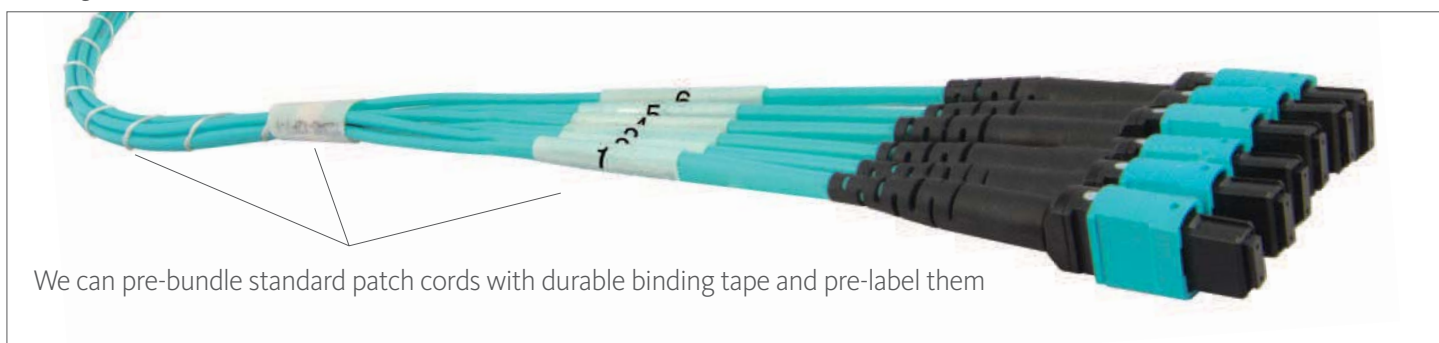
OM3 multimode fiber tested per TIA® specification, 83% tested  $\leq 0.1$  dB, 99% tested  $\leq 0.16$  dB





STANDARD PATCH CORDS			PART NO.	
CONNECTOR TYPE	FIBERS	RATING	OFNR JACKET TYPE	OFNP JACKET TYPE
[A] LC to LC duplex Uniboot	2	OM4 LOMMF 50 µm	GCFABBBQxx-M*	GCFPZBBQxx-M*
	2	OM3 LOMMF 50 µm	GCFGZBBLxx-M*	GCFRZBBLxx-M*
[B] LC to LC duplex	2	OM3 LOMMF 50 µm	GCFGZLLLxx-M*	GCFRZLLLxx-M*
[C] LC to SC duplex	2	OM3 LOMMF 50 µm	GCFGZCLLxx-M*	GCFRZCLLxx-M*
[D] SC to SC duplex	2	OM3 LOMMF 50 µm	GCFGZCCLxx-M*	GCFRZCCLxx-M*
[E] MPO to MPO	12	OM3 LOMMF 50 µm	GCFGSPPLxx-M*	GCFRSPPLxx-M*
[F] MTP to MTP	12	OM3 LOMMF 50 µm	GCFGSQQLxx-M*	GCFRSQQLxx-M*

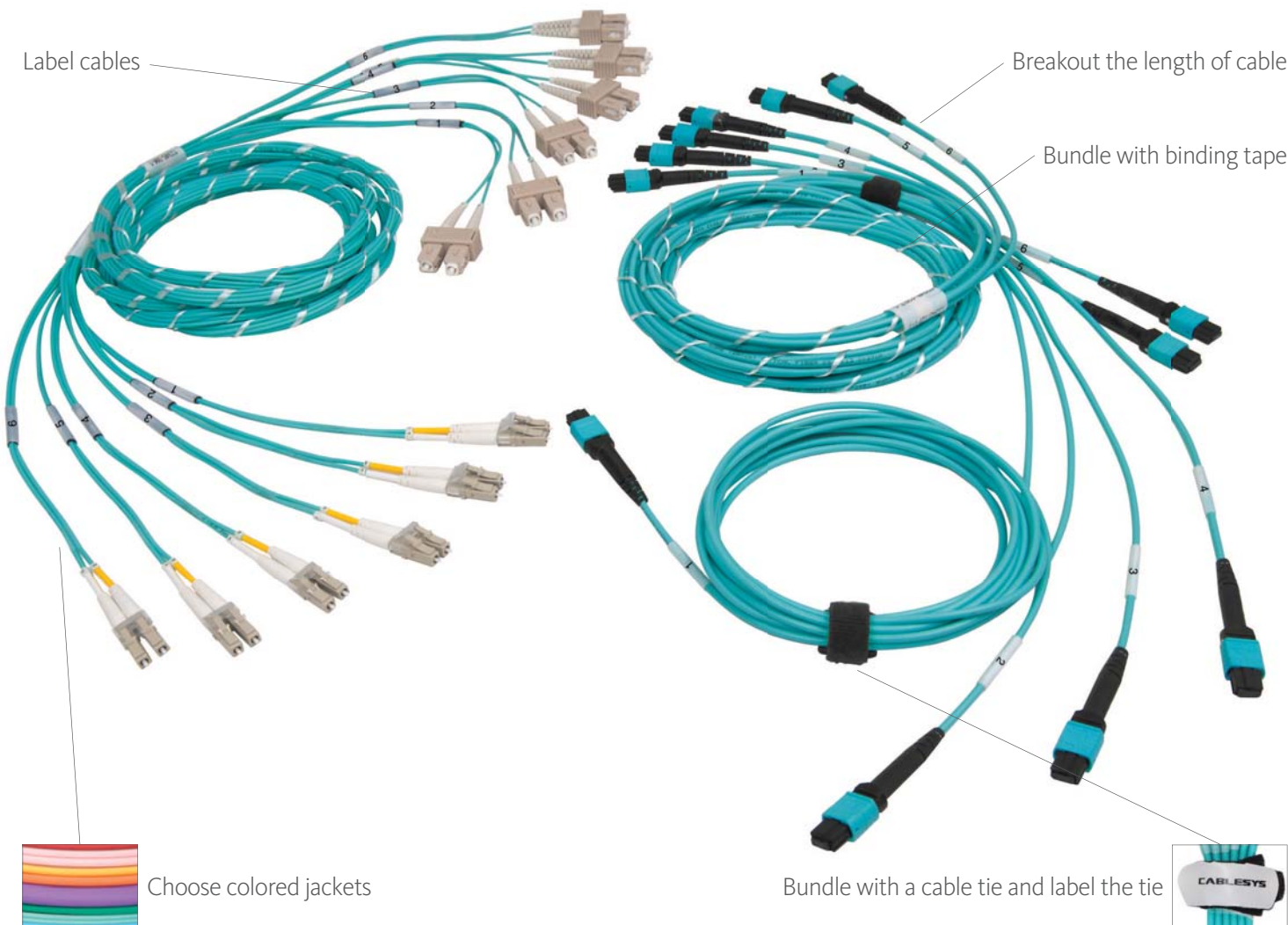
\*xx [length in meters, 1m = 3.28 feet] = 01 ~ 15m in stock with 1m increment.



Don't see the configurations you need? We can build to your spec. Talk to us!

# Built to Order Patch Cords

- Made with bend-insensitive fiber
  - Factory tested to exceed TIA 568 performance requirements
  - Average lead times; 7-10 days if made in the USA, 2-4 weeks if made offshore
- Test results are included for each assembly
  - We manufacture low and high volume capacities
  - We handle national deployments and small, quick-turn orders
  - Get a quotation within 24 hours from your Sales representative



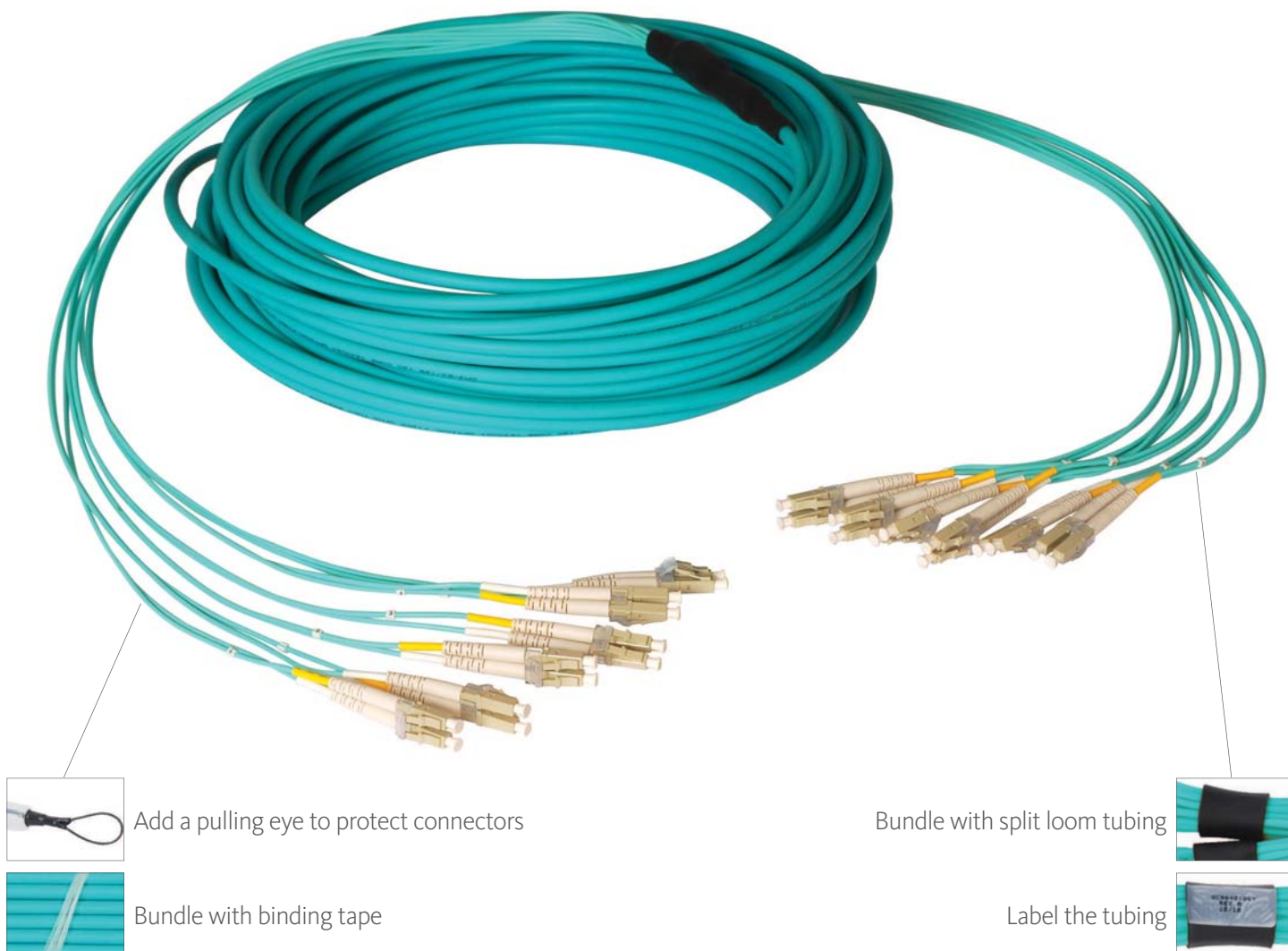
AVAILABLE OPTIONS						
CABLE COUNT	JACKET CONSTRUCTION	1ST TERMINAL CONNECTOR	2ND TERMINAL CONNECTOR	RATING	LENGTH	UNIT
Simplex	OFNR	ST	ST	OM4	1 or more	Meter
Duplex	OFNP	SC	SC	OM3		Feet
	LSZH	FC	FC	OM2		
		LC	LC	OM1		
		LC uni-body	LC uni-body	OS1		
		MPO	MPO			
		MPO with pins	MPO with pins			
		MTP	MTP			
		MTP with pins	MTP with pins			

Don't see the configurations you need? We can build to your spec. Talk to us!



# Built to Order Trunk Cable Assemblies

- Made with bend-insensitive fiber
- Factory tested to exceed TIA 568 performance requirements
- Test results are included for each assembly
- Average lead time; 2-4 weeks
- We manufacture low and high volume capacities
- We handle national deployments and small, quick-turn orders
- Get a quotation within 24 hours from your Sales representative



AVAILABLE OPTIONS						
CABLE COUNT	JACKET CONSTRUCTION	1ST TERMINAL CONNECTOR	2ND TERMINAL CONNECTOR	RATING	LENGTH	UNIT
6 fiber	Ribbon OFNR	ST	ST	OM4	1 or more	Meter
8 fiber	Ribbon OFNP	SC	SC	OM3		Feet
12 fiber	Distribution OFNR	FC	FC	OM2		
24 fiber	Distribution OFNP	LC	LC	OM1		
		LC uni-body	LC uni-body	OS1		
		MPO	MPO			
		MPO with pins	MPO with pins			
		MTP	MTP			
		MTP with pins	MTP with pins			

Don't see the configurations you need? We can build to your spec. Talk to us!

# Adapters

- Made with durable UL® 94 V-0 material and metal for up to 500 matings
- Designed with zirconia ceramic or metal sleeves for precision alignment
- Comes with protective caps to prevent dust from entering
- Designed to connect two patch cords together



ADAPTERS		PART NO.	
CONNECTOR TYPE	MOUNTING TYPE	OM3/OM4, AQUA	BLACK
[A] MPO simplex	SC mount with flange	GAFCMP8832	GAFCMP8802

CONNECTOR TYPE	MOUNTING TYPE	OM3/OM4, AQUA	24 PACKS	MM, BEIGE	SM, BLUE
		METAL SLEEVE	METAL SLEEVE	METAL SLEEVE	CERAMIC SLEEVE
[B] LC quad	Duplex SC mount	GAFCCLPB34	GAFCCLPV34	GAFCCLPB04	GAFCCLCZR04
[C] LC duplex	Square mount	GAFCCLPB32	–	GAFCCLPB02	GAFCCLCZR02
[D] LC duplex	Simplex SC mount	GAFCCLPB72	GAFCCLPV32	GAFCCLPB52	GAFCCLCZR52
[E] LC simplex	Square mount	–	–	GAFCCLPB51	GAFCCLCZR51
[F] SC duplex	Duplex SC mount	GAFCSCP832	–	GAFCSCP802	GAFCSCCZR02
[G] SC simplex	Simplex SC mount	–	–	GAFCSCP801	GAFCSCCZR01

CONNECTOR TYPE	MOUNTING TYPE	METAL HOUSING	METAL HOUSING
		METAL SLEEVE	CERAMIC SLEEVE
[H] LC to SC simplex	SC mount with flange	–	GAFCCLCZR21
[I] SC simplex	SC mount with flange	GAFCSCP821	GAFCSCCZR21
[J] SC duplex	SC mount with flange	GAFCSCP822	GAFCSCCZR22

# Attenuators and Splice Tray

- Ensures transmitters deliver the proper level of energy
  - Insertion Loss Range: 1~5dB ±0.75, 6~10dB 1.0, 11~15dB 15%
- Splice tray fits in all rack and wall mount enclosures
  - Designed to hold and protect individual fusion splices

# Loopback Adapters

- Flexible thumb release for easy removal
- OM3 and OM2 multimode and singlemode
- Bright color-coded body for easy identification
- Compact and ergonomic body, easy to store and handle



LC [A]



SC [B]



LC MM 50 µm [D]



Splice tray [C]



SC MM 50 µm [E]

DESCRIPTION		PART NO.			
ATTENUATOR TYPE		5 dB LOSS	10 dB LOSS	15 dB LOSS	20 dB LOSS
[A]	LC attenuator	GAFCLCA005	GAFCLCA010	GAFCLCA015	GAFCLCA020
[B]	SC attenuator	GAFCSCA005	GAFCSCA010	GAFCSCA015	GAFCSCA020
	SCA attenuator	GAFCSCAA05	GAFCSCAA10	GAFCSCAA15	GAFCSCAA20

SPLICE TRAY	
[C]	Base and cover, fusion splice holder for 12 fibers
	GHF7927012

LOOPBACK TYPE		MM 50 µm	MM 62.5 µm	SM 9 µm
[D]	LC loopback	GCFA1LLL00	GCFA1LLM00	GCFA1LLS00
[E]	SC loopback	GCFA1CCL00	GCFA1CCM00	GCFA1CCS00



# Fiber Optic Connectivity

10G / 40G / 100G



[cablesys.com/fiber](https://cablesys.com/fiber)

**CABLESYS**

Connect with us on [cablesys.com/linkedin](https://cablesys.com/linkedin) 

800.555.7176 [cablesys.com](https://cablesys.com) [cs@cablesys.com](mailto:cs@cablesys.com)

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