

# **Cable Assemblies**

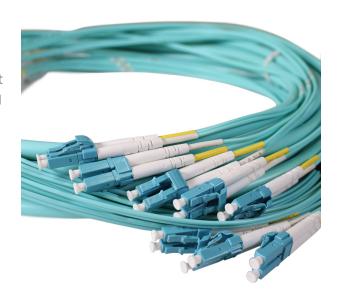
Be it from Data Centers to Enterprise Networks, connectorized cables are a necessary and critical component of a robust, physically interconnected fiber optic system, and Sumitomo Electric Lightwave (SEL) has years of experience in supplying these important, highly varied components to facilities worldwide.

Enhancing SEL's optical fiber development and manufacturing with a wide range of fiber, cables, connectors and sizes to choose from, SEL can provide most any type of connectorized cable assembly needed at competitive prices and lead times. SEL's Cable Assemblies are designed for use in any application requiring optical connections. Available in simplex, duplex, interconnect, and trunk configurations, these assemblies can contain up to 864 optical fibers.

Additional fiber count assemblies are available upon request.

#### FEATURES & BENEFITS -

- Industry Standard Connector Configurations: Compatible with all industry-standard connector configurations for maximum flexibility.
- Custom Termination & Cable Options: Tailor configurations to meet specific networking needs.
- Multiple Connector End Configurations: Various end configurations available. See ordering information on pages 4-5.
- Compatible Fiber Types: Can be designed with the following fiber types for versatility: OM1 (62.5µm); OM2, OM3, OM4, OM5 (50µm); SM (G.657.A2, G.657.A1)
- Environmental Suitability: Riser, plenum, and LSZH jackets provide options for different environmental and safety requirements.
- 12f/8f MPO Ribbon Assemblies: Quick and easy termination for 1G, 10G, 40G, and 100G applications.
- Flexible MPO Connector: Allows for gender and polarity changes in the field and push-pull operations.
- Superior Insertion Loss & Back Reflection Performance: Ensures minimal signal loss and high-quality data transmission.
- 100% Visual/Performance Verification: Rigorous visual and optical testing ensures optimal performance.
- Standards Compliance: Exceeds TIA and Telcordia requirements for quality and reliability.



### QUICK SPECS

SINGLE-FIBER CONNECTORS

LC, SC, STC, etc.

MULTI-FIBER CONNECTORS MPO, MTP, etc.

FIBER COUNT

1-864\*

FIBER SIZE

**Various** 

#### **APPLICATIONS** -

- Data Centers
- MPO Cassettes
- High Density Distribution Panels
- Direct Connection to Equipment
- Connection Between Patch Panels
- Restricted Space Installations
- Central Office Cross Connects

<sup>\*</sup> Additional fiber count assemblies available upon request









Simplex Patchcords

Duplex Patchcords

Distribution Trunk Cables

# **SPECIFICATIONS** -

#### **CONNECTOR TYPES**

CONNECTOR TYPES	
Lucent Connector (LC)	
Subscriber Connector (SC)	
Straight Tip Connector (ST)	
	·

### **INSERTION LOSS**

CONNECTOR TYPE	FIBER TYPE	POLISH TYPE	LOSS
·	SM	UPC	≤ 0.25 dB
LC	SM	APC	≤ 0.30 dB
	MM	UPC	≤ 0.30 dB
	SM	UPC	≤ 0.30 dB
SC / ST	SM	APC (SC Only)	≤ 0.50 dB
	MM	UPC	≤ 0.50 dB
	SM	Low Loss	≤ 0.35 dB
MPO	SM	Standard	≤ 0.75 dB
MPO	MM	Low Loss	≤ 0.35 dB
	MM	Standard	≤ 0.60 dB

#### **POLISH TYPES**

POLISH TYPES	
Ultra Physical Contact (UPC)	
Angled Physical Contact (APC)	

#### **RETURN LOSS**

CONNECTOR TYPE	FIBER TYPE	POLISH TYPE	LOSS
	SM	UPC	≥ 55 dB
LC	SM	APC	≥ 60 dB
	MM	UPC	≥ 25 dB
	SM	UPC	≥ 55 dB
SC / ST	SM	APC (SC Only)	≥ 60 dB
	MM	UPC	≥ 25 dB
	SM	Low Loss	≥ 60 dB
MDO	SM	Standard	≥ 55 dB
MPO	MM	Low Loss	≥ 20 dB
	MM	Standard	≥ 20 dB

PROPERTY	SI	1F	MMF OM1	MMF OM4	MMF OM5
Polish Type	UPC	APC	UPC	UPC	UPC
Housing Color	Blue	Green	Beige	Aqua	Lime
Operating Temperature			-4 to +158°F (-20 to	+70°C)	

#### CABLE ASSEMBLIES RESOURCES

# **Polarity Guide**



This guide helps you understand polarity configurations, enabling you to make informed decisions for your networking projects.

# Part Number Configurator



This user-friendly tool accommodates our most common cable assemblies, making it easy to configure and order the exact product you need.



## **ORDERING INFORMATION**

MPO24 / MTP24 Config 2

MPO24 / MTP24 Config 3 MPO24 / MTP24 Config 4

3

**Instructions:** Create a part number by using this character set and codes.

# D Z - 1 222 3 4 5 6 7 8 999 U - X Y P E

(21 characters minimum. More if exact length or other custom configuration.)

	Z - POLARITY / PIN-OUT		1 - FIBER TYPE		2 - FIBER COU	NT (3-D	IGITS)
	Single Fiber Cable	1	OM1 Fiber (62.5 µm)	001	1f	050	50f
Α	Single Fiber Cable	2	OM2 Fiber (50 µm)	002	2f	060	60f
Mu	lti-Fiber Cable with Single-Fiber Connectors (LC, SC, ST, etc.)	3	OM3 Fiber (50 µm)	004	4f	072	72f
Α	A Connector to A Connector (Crossover Type)	4	OM4 Fiber (50 µm)	006	6f	096	96f
В	A Connector to B Connector (Straight Through Type)	5	OM5 Fiber (50 µm)	008	8f	144	144f
Mı	ulti-Fiber Cable with Multi-Fiber Connectors (MPO, MTP, etc.)	8	SM (G.657.A2)	012	12f	288	288f
Α	MPO / MTP Type A	9	SM (G.657.A1)	016	16f	432	432f
В	MPO / MTP Type B			024	24f	576	576f
С	MPO / MTP Type C			036	36f	864	864f
D	MPO / MTP SM Type B (with Window Up Key Down)			048	48f		
G	40G Method B; 1-1A (Outer 8F out of 12F)				Additional fiber count assem	blies avai	ilable upon request.
н	40G Method A; 1-1B (Outer 8F out of 12F)				, is a second moor count assem	5.755 <b>G</b> VG/	asic aport agadat.
1	MPO24 / MTP24 Config 1						

	3 - CABLE DESIGN		4 - ARMOR TYPE		5 - CABLE JACKET/ FLAME RETARDANCY RATING		6 - SUBUNITS (FURCATION CORD)	
Р	Pliable Ribbon (250 µm)	N	No Armor	Α	OSP	С	1.6 mm	
Q	Pliable Ribbon (200 µm)	L	Interlocking Armor	В	Riser	Т	2.0 mm	
Α	Flat Ribbon (250 µm)	М	Micro Armor	С	Indoor / Outdoor Riser	Х	3.0 mm	
В	Flat Ribbon (200 µm)			D	LSZH (Low Smoke Zero Halogen)	9	900 µm	
х	Loose Buffer (200 µm)			E	Riser LSZH	٧	SEL Option	
Υ	Loose Buffer (250 µm)			F	Indoor / Outdoor Riser LSZH	D	Not Applicable	
z	Tight Buffer (900 µm)			G	Plenum			
				н	Indoor / Outdoor Plenum			
				2	B1ca			
				3	B2ca			
				4	Cca			
				3	Dca			

For ordering assistance, please contact our Inside Sales team at 800-358-7378.



	7 & 8 - CONNECTOR END A & B							
	Two Choices Needed							
0	LC, Simplex	9	LC-UNIBOOT / APC (Reversible, with Pull Tab/Boot)	ı	Do Not Use	R	MPO/MTP (Female/Unpinned), 24 Fiber, Standard Loss	
1	LC, Duplex (Zip Cord)	Α	MPO/MTP (Male/Pinned), 8 Fiber, Low Loss	J	MPO/MTP (Male/Pinned), 16 Fiber, Low Loss	s	SC, Duplex (Zip Cord)	
2	LC/APC, Simplex	В	MPO/MTP (Male/Pinned), 8 Fiber, Standard Loss	К	MPO/MTP (Male/Pinned), 16 Fiber, Standard Loss	т	SC, Simplex	
3	LC/APC, Duplex	С	MPO/MTP (Female/Unpinned), 8 Fiber, Low Loss	L	MPO/MTP (Female/Unpinned), 16 Fiber, Low Loss	U	SC/APC, Duplex (Zip Cord)	
4	LC-UNIBOOT (Non-Reversible, No Pull Tab/Boot)	D	MPO/MTP (Female/Unpinned), 8 Fiber, Standard Loss	М	MPO/MTP (Female/Unpinned), 16 Fiber, Standard Loss	V	SC/APC, Simplex	
5	LC-UNIBOOT (Reversible, No Pull Tab/Boot)	E	MPO/MTP (Male/Pinned), 12 Fiber, Low Loss	N	MPO/MTP (Male/Pinned), 24 Fiber, Low Loss	w	ST	
6	LC-UNIBOOT (Reversible, with Pull Tab/Boot)	F	MPO/MTP (Male/Pinned), 12 Fiber, Standard Loss	0	Do Not Use	x	BARE END (Open/Blunt)	
7	LC-UNIBOOT / APC (Non-Reversible, No Pull Tab/Boot)	G	MPO/MTP (Female/Unpinned), 12 Fiber, Low Loss	Р	MPO/MTP (Male/Pinned), 24 Fiber, Standard Loss	Υ	FC	
8	LC-UNIBOOT / APC (Reversible, No Pull Tab/Boot)	Н	MPO/MTP (Female/Unpinned), 12 Fiber, Standard Loss	Q	MPO/MTP (Female/Unpinned), 24 Fiber, Low Loss	z	FC/APC	

	9 - LENGTH (3-DIGITS) U - LENGTH UNIT		U - LENGTH UNIT	X & Y - END A & B BREAKOUT LENGTH				
001	001-999+	F	Feet		Two Choices Needed		eded	
Lon	ger lengths may be available upon request.	м	Meters	1	18 in (457 mm) - No Stagger	н	18 in (457 mm) - Fiber Pair Stagger	
	, 694660	1	Inch	2	24 in (609 mm) - No Stagger	J	24 in (609 mm) - Fiber Pair Stagger	
				3	36 in (914 mm) - No Stagger	К	36 in (914 mm) - Fiber Pair Stagger	
				4	48 in (1,219 mm) - No Stagger	L	48 in (1,219 mm) - Fiber Pair Stagger	
				5	60 in (1,524 mm) - No Stagger	М	60 in (1,524 mm) - Fiber Pair Stagger	
				6	72 in (1,828 mm) - No Stagger	N	72 in (1,828 mm) - Fiber Pair Stagger	
			7	7	16 in (406 mm) - No Stagger	Q	18 in (457 mm) - Subunit & Fiber Stagger	
				8	12 in (305 mm) - No Stagger	R	24 in (609 mm) - Subunit & Fiber Stagger	
				Α	18 in (457 mm) - Subunit Stagger	S	36 in (914 mm) - Subunit & Fiber Stagger	
				В	24 in (609 mm) - Subunit Stagger	Т	48 in (1,219 mm) - Subunit & Fiber Stagger	
				С	36 in (914 mm) - Subunit Stagger	U	60 in (1,524 mm) - Subunit & Fiber Stagger	
				D	48 in (1,219 mm) - Subunit Stagger	V	72 in (1,828 mm) - Subunit & Fiber Stagger	
				E	60 in (1,524 mm) - Subunit Stagger	w	Special	
				F	72 in (1,828 mm) - Subunit Stagger	х	No Breakout	

	P - PULLING EYE	ı	E - FOR EXACT LENGTH ONLY				
Α	Pulling Eye on A End Only	Е	Exact Length, +/- 0.5 in				
В	Pulling Eye on B End Only	х	Not Exact Length				
D	Pulling Eyes on Both Ends	Exact Length Cables: Assemblies that					
Х	No Pulling Eye	feature highly precise fiber lengths the provide more equal latency across the fibers housed within the assembly.					

For ordering assistance, please contact our Inside Sales team at 800-358-7378.

**EXAMPLE D A - 9 002 Z N B T 1 1 003 M - X X X X** | Part No. is: DA-9002ZNBT11003M-XXXX

Cable Assembly, A Connector to B Connector (Crossover Type), SM (G.657.A1), 2-Fibers, Tight Buffer (900 µm), No Armor, Riser, 2.0 mm Subunit, LC-Duplex to LC-Duplex, 3 Meters Long, No Breakout, No Pulling Eye, Not Exact Length

To learn more information visit www.SumitomoElectricLightwave.com