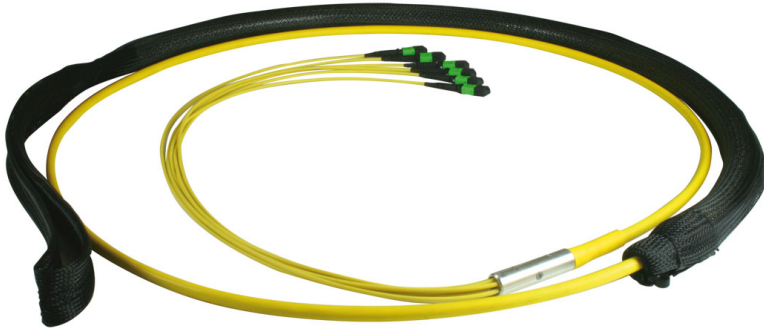


# MPO Loose Tube Trunk



LooseTube Cable Assemblies utilize the patented AFL Hyperscale® transition module and guarantees superior tensile strength and crushing resistance. The high density design can scale from 2 up to 144 fibers and can feature both 900 µm and ruggedised 2 mm tail leads. Assemblies can comprise of both multifiber MPO and discrete connectors, making the AFL Hyperscale® a flexible hybrid solution for diverse applications.

## FEATURES/BENEFITS

- Available in OS1/2 G.657A1, OM1, OM2, OM3, OM4
- Up to 144 fiber core count
- Available with Multifiber MPO and discrete connectors
- 900 µm or 2 mm ruggedised tails
- Internal/External Application
- Factory terminated and tested
- Steel tape armored version available
- **Very High Density** AFL Hyperscale® LT can scale up to 144 fibers for very high density Data Centre or Central Office application.
- **Hybrid MPO and Discrete Connector Interface** AFL Hyperscale® LT can be used as high density multifiber MPO ruggedised trunk or ruggedised MPO to LC or SC fanouts.
- **Tails Selection** 2mm ruggedised tails can be used for a direct front panel or equipment connections whereas 900µm tails can be used for installation inside fiber management.
- **Rapid Deployment** Factory terminated cabling saves installation and reconfiguration time eliminating field deployment variables.
- **Optimised Performance** Low loss Premium MPO, discrete Premium connectors and OM4 fiber assures low insertion losses and power penalties in tight power budget high speed network environment.
- **Compact Size** Small dimension of breakout module and multifiber assemblies improves space management in high density applications.

## APPLICATIONS

- Data Centre Infrastructure
- Central Office, Access Points or CATV hubs
- Internal and Backbone Application



## SPECIFICATIONS

ELEMENT	CHARACTERISTIC
<b>Fiber</b>	OS1/OS2 G.657A1, OM1, OM2, OM3, OM4 (IEC 60793)
<b>Tail Dimensions</b>	3 mm Simplex Staggered Configuration (MPO)
<b>MPO Connectors</b>	MPO 12 Fiber Ferrule <b>Boot Colour:</b> Black <b>Body Sleeve Colour:</b> MM (Beige) MM Elite (Aqua), SM (Green), SM Elite (Yellow)
<b>Other Terminations</b>	SC, LC, ST, FC, E2000
<b>Cable Construction</b>	Single Loose Tube (LT) 2-24 Cores (IEC 60794) Multi Loose Tube up to 48 Cores Single Loose Tube STA Armoured up to 48 Cores Multi Loose Tube STA Armoured up to 48 Cores Jacket Material: LSZH, PE; OFNP, OFNR
<b>Cable Diameter</b>	Single LT (Up to 24 Cores) OD MAX: 5.8-6.7 ± 0.3 mm Multi LT (Up to 48 Cores) OD MAX: 13.7 ± 0.3 mm
<b>Crush Resistance</b>	Single LT 1000 N/100 mm Multi LT 3000 N/100 mm
<b>Design Pulling Strength</b>	Single LT (Short) 1000N Multi LT (Short) 1000N
<b>Cable Strength Member</b>	Single LT - E-Glass Multi LT - FRP/E-Glass
<b>Storage Temperature</b>	-5 ~ +40°C
<b>Installation Temperature</b>	-20 ~ +60°C
<b>Operating Temperature</b>	-20 ~ +60°C
<b>Tail Protection</b>	Crush Resistance Tube - OD MAX 25 mm (up to 4x3 mm Tails)
<b>Pulling Element</b>	RPS Reusable Sock
<b>Gland</b>	PG 13.5 End A/B (up to 4x3 mm Tails)
<b>Packaging</b>	Length ≤ 100 - Heavy Duty PE bag / Length > 100 m - Drum (up to 24 x Fibers)

## Connector Performance

CONNECTOR PERFORMANCE - MPO	IL AVERAGE	IL MAX	RETURN LOSS
<b>MPO Premium (MM)</b>	0.10 dB	0.35 dB	N/A
<b>MPO Premium (SM)</b>	0.10 dB	0.35 dB	>60 dB
<b>MPO (MM)</b>	0.20 dB	0.60 dB	N/A
<b>MPO (SM)</b>	0.25 dB	0.75 dB	>60 dB

OPTICAL PERFORMANCE*	MM PREMIUM	MM ENHANCED	SM PREMIUM	SM ENHANCED	CONFORMANCE
<b>IL Max/Master (Acceptance)</b>	0.15 dB	0.25 dB	0.15 dB	0.25 dB	IEC 61300-3-4
<b>Ave/Master</b>	0.08 dB	0.15 dB	0.12 dB	0.18 dB	IEC 61300-3-4
<b>Ave/Random</b>	0.10 dB	0.20 dB	0.12 dB	0.18 dB	IEC 61300-3-34
<b>RL(Min Acceptance)</b>	NA	NA	55/65**	55/65**	IEC 61300-3-6

\* Connector Performance table does not refer to E2A terminations

\*\* (UPC/APC)

## Cable Performance

CABLED FIBRE TYPE (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
<b>Attenuation Coefficient [dB/km]</b>	≤ 0.38 Max (1310 nm)	≤ 3.5 Max (850 nm)	≤ 3.5 Max (850 nm)	≤ 3.5 Max (850 nm)	≤ 3.5 Max (850 nm)
	≤ 0.25 Max (1550 nm)	≤ 1.5 Max (1300 nm)	≤ 1.5 Max (1300 nm)	≤ 1.5 Max (1300 nm)	≤ 1.5 Max (1300 nm)
	≤ 0.34 Typ (1310 nm)	≤ 2.9 Typ (850 nm)	≤ 2.7 Typ (850 nm)	≤ 2.7 Typ (850 nm)	≤ 2.7 Typ (850 nm)
	≤ 0.19 Typ (1550 nm)	≤ 1.2 Typ (1300 nm)	≤ 0.9 Typ (1300 nm)	≤ 0.9 Typ (1300 nm)	≤ 0.9 Typ (1300 nm)
			≥ 200 (850 nm)	≥ 500 (850 nm)	≥ 1500 (850 nm)
<b>Minimum Bandwidth: Overfilled Launch [Mhz-km]</b>	N/A	≥ 500 (1300 nm)	≥ 500 (1300 nm)	≥ 500 (1300 nm)	≥ 500 (1300 nm)
<b>Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]</b>	N/A	N/A	N/A	≥ 2000 (850 nm)	≥ 4700 (850 nm)

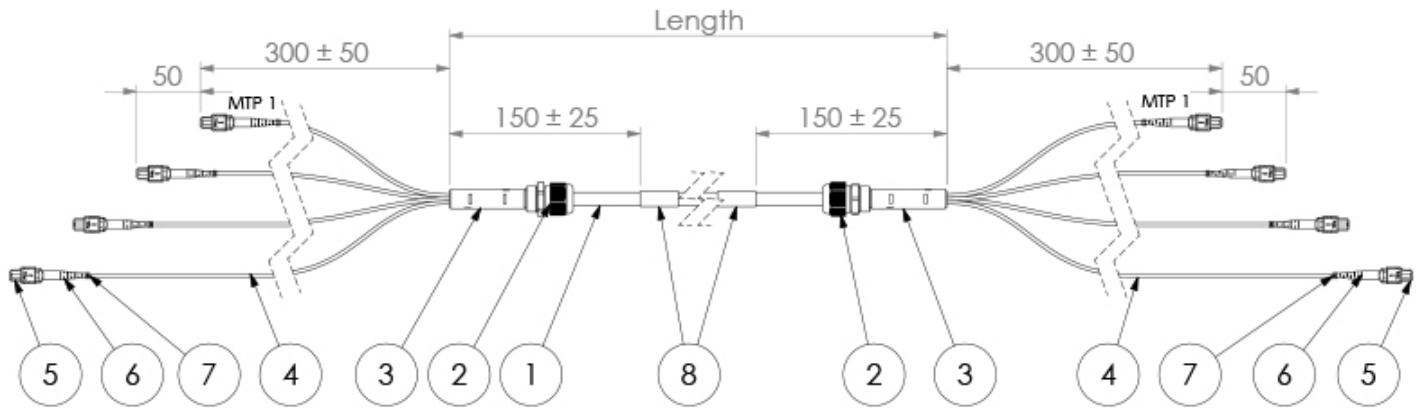


Diagram for illustration only, applies to all fibre counts up to 144. See Sheet 3 for tail lengths.

See sheet 2 for connector, furcation and cable options

See Sheet 4 for polarity map

Tails protected by high crush resistant corrugated tubing.

Pulling sock to be applied to End A for tail lengths over 20m

\* Ø15mm up to 72 fibres, Ø22mm for higher fibre counts.

\*\* PG13.5 or M20 for Ø15mm breakout module, M25 for Ø22mm breakout module

No.	Description	Qty.
1	Loose Tube Cable (See Sheet 2)	1
2	Compression Gland without Nut **	2
3	Breakout Module *	2
4	3mm Furcation Tubing (See Options)	-
5	MTP Connector (See Sheet 2)	-
6	MTP Round Connector Boot (Black)	-
7	Tail Identification Marker (C-Clip)	-
8	Serial Number Label (Wrap Around)	2

**ADDITIONAL INFORMATION**

- TIA/EIA-568-C.3 and ISO/IEC 11801
- IEC 60793 and IEC 60794
- IEC 61753, IEC 61754 and IEC 61755
- IEC 60332-1, IEC 61034-1/2 and IEC 61754-1/2
- RoHS, REACH and SvHC materials compliant

ORDERING INFORMATION

Code	Fiber Type	Fiber Count / Cable Type	Jacket Material	Code	End A	End B	Polarity	Polarity	Unit	Length
M	1 OM1	BQB 12F SLT	L LSZH	8P	U MPO F	U MPO F	-A Polarity A	027- MPO Staggered Tails	M Meters	1 1
	2 OM2	BQF 24F SLT	R OFNR		V MPO M	V MPO M	-B Polarity B	035- MPO to Simplex Staggered	F Feet	2 2
	3 OM3	CBJ 48F MLT (5 element)	P OFNP			A LC	-C Polarity C	047- MPO to Uniboot Staggered Tails		3 3
	4 OM4	CGM 72F MLT (6 element)*	Y PE			B LCA	-L Fanout 1 to A (Crossed)	088- MPO to LC Reversible Uniboot Staggered Tails		5 5
	9 G.652D	CLP 96F MLT (8 element)*				C LC Uniboot	-M Fanout 1 to B (default)			10 10
	7 G.657A1	CQT 144F MLT (12 element)*				D SC				
						E SCA				
						H FC				
						J FCA				
						K ST				
						L E2				
						M E2A				

Legacy ordering information

PRE	Fiber Count		Connector End A		Connector End B				Fiber Type		Cable Construction		Cable Length		Length Unit		Jacket type		Polarity		Termination Grade	
	12	12 core	MF	MPO (F)	LC	LC	LCU	LC Uniboot	09	OS1/OS2 9/125	LTR	Loose Tube	1	1	leave blank	metre	leave blank	LSZH	A	Polarity A	leave blank	Standard
	24	24 core	MPF	MPO Premium(F)	LCA	LC/ APC	MF	MPO (F)	62	OM1 62.5/125	STAR	Loose Tube Steel Tape Armoured	2	2	FT	Feet	PE	PE	B	Polarity B	/P	Premium
	48	48 core	MM	MPO (M)	SC	SC	MPF	MPO Premium (F)	50	OM2 50/125			3	3			RI	Riser	C	Polarity C		
	72	72 core	MPM	MPO Premium(M)	SCA	SC/ APC	MM	MPO (M)	OM3	OM3 50/125			5	5			PL	Plenum				
	96	96 core	*	*	ST	ST	MPM	MPO Premium (M)	OM4	OM4 50/125			10	10			RIUL	Riser UL				
	144	144 core			FC	FC	*LCR	LC Uniboot Reversible Polarity	7A1	G.657A1			XX	Specify			PLUL	Plenum UL				
					FCA	FC/ APC											E	LSZH CPR Euroclass Eca				

OTHER INFORMATION

For additional information please contact your sales representative or visit the product 360 visit the product page (Scan the QR code or visit the link below) <https://www.afllhyperscale.com/product/mpo-loose-tube-trunk>

\*LCR Connector, please contact your sales representative for suitability.

24 MPO Premium (F) and MPO Premium (M) are available on request. Please contact us for more information.

24 MPO Premium (M) and MPO Premium (F) are available on request. Add suffix "-US" to the end of PN



Example Part Number

Eu	PRE	12	MF	LC	09	S	LTR	1			A	C		
PRE12MFLC09LTRLCS- Preterm 12 Fiber MPO (F)- LC OS1/OS2 9/125 Loose Tube LSZH Black 1mtr Polarity C														
+44 (0) 1908 441 144			+1 866 814 8615			+971 4 404 9606			+91 80 46874687			+86 755 2561 3694		
emeasales@afllhyperscale.com			usasales@afllhyperscale.com			mesales@afllhyperscale.com			indiasales@afllhyperscale.com			apacsales@afllhyperscale.com		
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