

# ASCEND MPO Trunk Assemblies

ASCEND® MPO trunk assemblies provide a high-performance plug-and-play solution for data center and enterprise applications where space is limited. The small-diameter MicroCore® provides higher tolerance to bends during and after installation, which requires less space in cable trays, raceways, ducts and conduits. This also enables more efficient airflow in congested, high density cabling applications.

## Features

### MPO Interface

- MPO components feature superior optical and mechanical properties
- Female and Male MPO connectors available
- Base-8, Base-12, and Base-24 connectors available
- Polarity options available

### Premium Performance Enabled by MTP® PRO and MTP® Elite

- Low loss Premium MPO connectors and fiber assures low insertion losses and power penalties in tight power budget high-speed network environments
- MTP® PRO multimode connectors include field-reversible polarity and gender

### Trunk Cable Designed for Ease of Installation

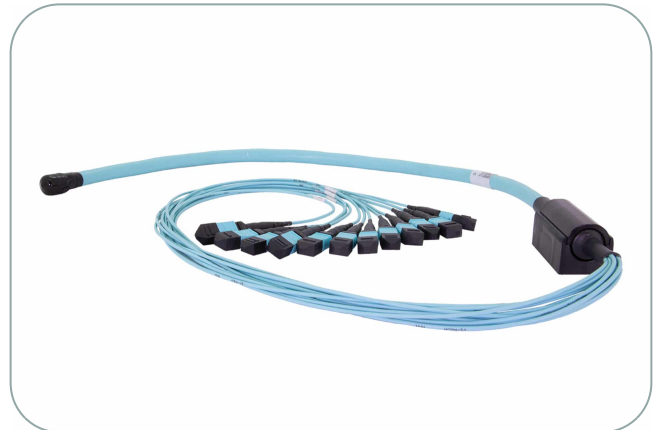
- Reduced diameter MicroCore® cable with 2.0 mm subunits (up to 144 fibers)
- Integrated Outback Clip mates directly with the trunk cable management area in the rear of all ASCEND housings
- Pulling eye option available
- Pre-defined breakout length eliminates design guesswork

## Applications

- Data Centre
- Campus
- Central Office
- Office backbone

## Specifications

### Connector Performance



Connector Mating	Insertion Loss Max	Return Loss
Multimode Premium	0.35 dB	≤-25 dB
Singlemode Premium	0.35 dB	≤-60 dB

### Cable Specifications

Fiber count	Cable diameter (mm)	Crush resistance	Cable tensile strength (installed)	Bend Radius Installed	Storage temperature	Installation Temperature	Operating Temperature	Fibers
8	4.8 ±0.2	1000N/100mm	150N	48mm	-20 ~ +70°C	0 ~ +60°C	0 ~ +60°C	OM3, OM4, SM G657A1
12	4.8 ±0.2	1000N/100mm	150N	48mm				
16	4.8 ±0.2	1000N/100mm	150N	48mm				
24	4.8 ±0.2	1000N/100mm	150N	48mm				
48	5.6 ±0.2	1000N/100mm	150N	56mm				
72	6.4 ±0.2	1000N/100mm	150N	64mm				
96	10.3 ±0.2	1000N/100mm	150N	103mm				
144	10.3 ±0.2	1000N/100mm	150N	103mm				

### Cable Performance

Cabled Fibre Type (ISO/IEC 11801)	SM (OS1/OS2)	OM3	OM4
Attenuation Coefficient [dB/km]	≤0.38 Max (1310 nm) ≤0.25 Max (1550 nm) ≤0.34 Typ (1310 nm) ≤0.19 Typ (1550nm)	≤ 3.5 Max (850 nm) ≤ 1.5 Max (1300 nm) ≤ 2.7 Typ (850 nm) ≤ 0.9 Typ (1300 nm)	≤ 3.5 Max (850 nm) ≤ 1.5 Max (1300 nm) ≤ 2.7 Typ (850 nm) ≤ 0.9 Typ (1300 nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	N/A	≥ 1500 (850 nm) ≥ 500 (1300 nm)	≥ 3500 (850 nm) ≥ 500 (1300 nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	N/A	≥ 2000 (850 nm)	≥ 4700 (850 nm)

### Specifications

Connector	Connector Ordering Code	Connector Housing Color	Fiber Type	Cable Jacket Color	IL (Typical dB)	IL (MAX. DB)	Reflectance (Typical dB)
8F MTP Elite (unpinned)	EEF	Yellow	Single-mode G.657.A1 (BIF)	Yellow	0.1	0.35	-60
8F MTP Elite (pinned)	EEM	Yellow	Single-mode G.657.A1 (BIF)	Yellow	0.1	0.35	-60
8F MTP Pro (unpinned)	PFEF	Aqua	50 μm OM3, OM4	Aqua	0.1	0.35	-20
8F MTP Pro (pinned)	PFEM	Aqua	50 μm OM3, OM4	Aqua	0.1	0.35	-20
12F MTP Elite (unpinned)	ETF	Yellow	Single-mode G.657.A1 (BIF)	Yellow	0.1	0.35	-60
12F MTP Elite (pinned)	ETM	Yellow	Single-mode G.657.A1 (BIF)	Yellow	0.1	0.35	-60
12F MTP Pro (unpinned)	PFTF	Aqua	50 μm OM3, OM4	Aqua	0.1	0.35	-20

Connector	Connector Ordering Code	Connector Housing Color	Fiber Type	Cable Jacket Color	IL (Typical dB)	IL (MAX. DB)	Reflectance (Typical dB)
12F MTP Pro (pinned)	PFTM	Aqua	50 µm OM3, OM4	Aqua	0.1	0.35	-20

### Qualifications

Governing Body	Standard Code	Component
ITU	G.657.A1	Single-mode optical fiber only
Telcordia	GR-326/GR-1435	Connectors
	GR-409-CORE	Cable
EIA/TIA	568-A	Cable
RoHS	Compliant	Cable

### Ordering Information

Category	Description	Part Number
BASE-8	AFL ASCEND® 24 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	MF-MF-GE-024-C-XXXXM-A-F-RS
	AFL ASCEND® 24 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	EF-EF-GE-024-Q-XXXXM-A-F-RS
	AFL ASCEND® 48 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	MF-MF-GE-048-C-XXXXM-A-F-RS
	AFL ASCEND® 48 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	EF-EF-GE-048-Q-XXXXM-A-F-RS
	AFL ASCEND® 96 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	MF-MF-GE-096-C-XXXXM-A-F-RS
	AFL ASCEND® 96 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	EF-EF-GE-096-Q-XXXXM-A-F-RS
	AFL ASCEND® 144 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	MF-MF-GE-144-C-XXXXM-A-F-RS
	AFL ASCEND® 144 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-8 Trunk W/ Pulling Grip End A, XXXXM	EF-EF-GE-144-Q-XXXXM-A-F-RS

Category	Description	Part Number
BASE-12	AFL ASCEND® 24 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	PF-PF-GE-024-C-XXXXM-A-F-RS
	AFL ASCEND® 24 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	TF-TF-GE-024-Q-XXXXM-A-F-RS
	AFL ASCEND® 48 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	PF-PF-GE-048-C-XXXXM-A-F-RS
	AFL ASCEND® 48 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	TF-TF-GE-048-Q-XXXXM-A-F-RS
	AFL ASCEND® 96 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	PF-PF-GE-096-C-XXXXM-A-F-RS
	AFL ASCEND® 96 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	TF-TF-GE-096-Q-XXXXM-A-F-RS
	AFL ASCEND® 144 Fiber OM4 indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	PF-PF-GE-144-C-XXXXM-A-F-RS
	AFL ASCEND® 144 Fiber SM indoor CPR MTP (Female) to MTP (Female) Base-12 Trunk W/ Pulling Grip End A, XXXXM	TF-TF-GE-144-Q-XXXXM-A-F-RS