

Multifibre FirstLight Prime Cable Assemblies

First Light Prime is a special design platform for multifibre optical cable assemblies. It utilizes the patented First Light Prime transition module and guarantees superior tensile strength and crushing resistance. The high density design can scale from 4 up to 144 fibres and can feature both 900µm and ruggedized 2mm tail leads. Assemblies can comprise of both multifibre MTP and discreet connectors, making the FirstLight Prime a flexible hybrid solution for diverse applications.

Features

- > OS1/2, OM1, OM2, OM3, OM4 Fibre Grade
- > Up to 144 Fibres Core Count
- > Available with Multichannel MTP and Discreet Connectors
- > Ruggedized 2mm or 900µm Tails
- > Internal/External Application
- > Factory terminated and tested

Benefits

- > **Very High Density**- First Light Prime can scale up to 144 fibres for very high density Data Centre or Central Office application.
- > **Hybrid MTP and Discreet Connector Interface**- FirstLight Prime can be used as high density multifibre MTP ruggedized trunk or ruggedized MTP to LC or SC fanouts.
- > **Tails Selection**- 2mm ruggedized tails can be used for a direct front panel or equipment connections whereas 900µm tails can be used for installation inside fibre management.
- > **Rapid Deployment**- factory terminated cabling saves installation and reconfiguration time eliminating field deployment variables.
- > **Optimised Performance**- low loss MTP Elite, discreet Premium connectors and OM4 fibre assures low insertion losses and power penalties in tight power budget high speed network environment.
- > **Compact Size**- small dimension of breakout module and multifibre assemblies improves space management in high density application.

Applications

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

Connector Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP Elite (MM)	0.20 dB	0.35 dB	NA
MTP (MM)	0.35 dB	0.60 dB	NA
Discreet (MM)	0.15dB	0.30dB	NA
Discreet Premium (MM)	0.08dB	0.15dB	NA

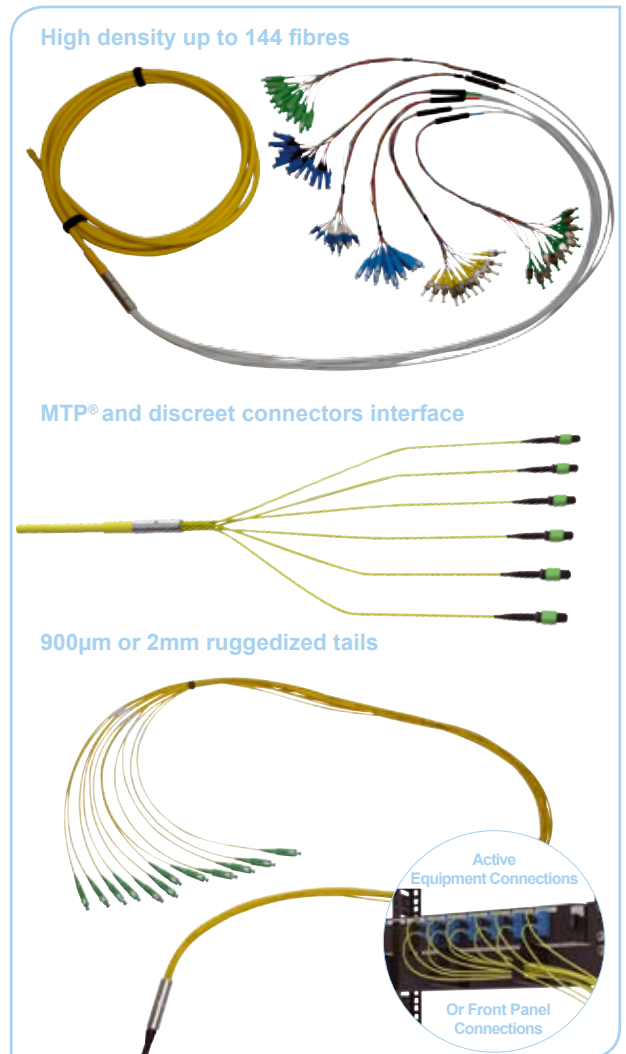
Standards Compliance

- > TIA/EIA-568-C.3 and ISO/IEC 11801
- > ISO/IEC 60793 and ISO/IEC 60794
- > ISO/IEC 61753, IEC 61754 and IEC 61755
- > ISO/IEC 60332-1, IEC 61034-1/2 and IEC 61754-1/2
- > Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP Elite (SM)	0.18 dB	0.25 dB	>60dB
MTP (SM)	0.25 dB	0.75 dB	>60dB
Discreet (SM)	0.18dB	0.25dB	>55/65dB*
Discreet Premium (SM)	0.12dB	0.15dB	>55/65dB*

Cable Performance

FibreType (ISO/IEC 11801)	OS1/OS2	OM1	OM2	OM3	OM4
Attenuation Coefficient [dB/km]	≤ 0.38 Max (1300nm) ≤ 0.25 Max (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm)	≤ 3.5 Max (850nm) ≤ 1.5 Max (1300nm)
	≤ 0.34 Typ (1550nm) ≤ 0.19 typ (1550nm)	≤ 2.9 Typ (850nm) ≤ 1.2 typ (1300nm)	≤ 2.7 Typ (850nm) ≤ 0.9 typ (1300nm)	≤ 2.7 Typ (850nm) ≤ 0.9 typ (1300nm)	≤ 2.7 Typ (850nm) ≤ 0.9 typ (1300nm)
Minimum Bandwidth: Overfilled Launch [Mhz-km]	NA	≥ 200 (850nm) ≥ 500 (1300nm)	≥ 500 (850nm) ≥ 500 (1300nm)	≥ 1500 (850nm) ≥ 500 (1300nm)	≥ 3500 (850nm) ≥ 500 (1300nm)
Minimum Bandwidth: Laser Effective Modal Bandwidth [Mhz-km]	NA	NA	NA	≥ 2000 (850nm)	≥ 4700 (850nm)

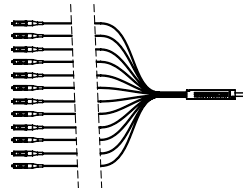


Technical Specification

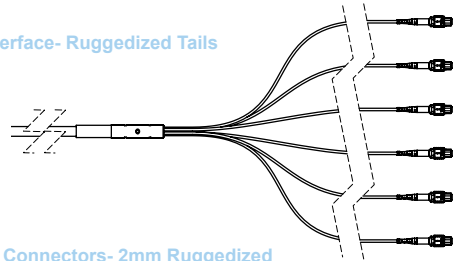
Element	Characteristic
Fibre	OS1/OS2, OM1, OM2, OM3, OM4 (ISO/IEC 60793)
Cable	Loose Tube 2-144 cores (ISO/IEC 60794) OD MAX 24 cores 6.4 ± 0.3mm / OD MAX 144 cores 14.2 ± 0.3mm Jacket material: LSZH, PE, OFNP* Jacket color: Black
Connectors	MTP US Conec (IEC-61754-7 & EIA/TIA-604-5) Boot Colour: Black Body Sleeve Colour: MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow) Discreet Connector (IEC 61754-20) Boot Colour: White Housing Color: Beige (MM), Blue (SM), Green (SM/APC)
Packaging	Length < 50m – Heavy Duty PE bag / Length > 50m – Drum
Operating Temperature	-10 ~ +60°C
Storage Temperature	-40 ~ +70°C

Assembly Configuration Options

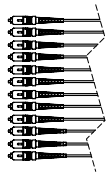
Discreet Connectors- 900µm Tails



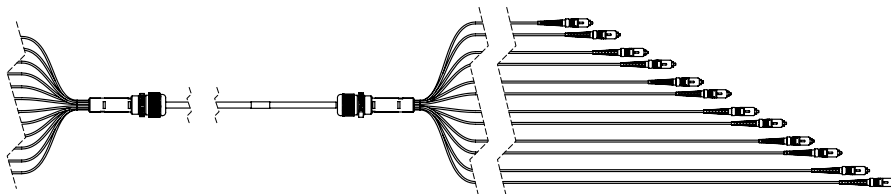
MTP® Interface- Ruggedized Tails



Discreet Connectors- 2mm Ruggedized Fan Out Tails



Discreet Connectors- 2mm Ruggedized Staggered Tails



Product Configurator

FLP	Connector END A		Connector Class A	Tail A	Fibre Type	Fibre Count	Jacket Type	Cable length	Connector END B		Connector Class B	/Z
	LC	FC	Standard	900µm	OS1/OS2	2 to 144	LSZH	Mtrs	LC	FC	Standard	
	LC/APC	FC/APC	Premium/Elite	2/3mm	OM1		PE		LC/APC	FC/APC	Premium/Elite	
	SC	SC/APC			OM2		OFNP		SC	SC/APC		
	E2000	E2000/APC			OM3				E2000	E2000/APC		
	ST	MTP Male			OM4				ST	MTP® Male		
	MTP Female				G.657A1 (A1)				MTP® Female			

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