

Multifiber FirstLight Prime Cable Assemblies

Single Stage Up to 48 Fibers 900µm/ 2mm Tails

V.3.4

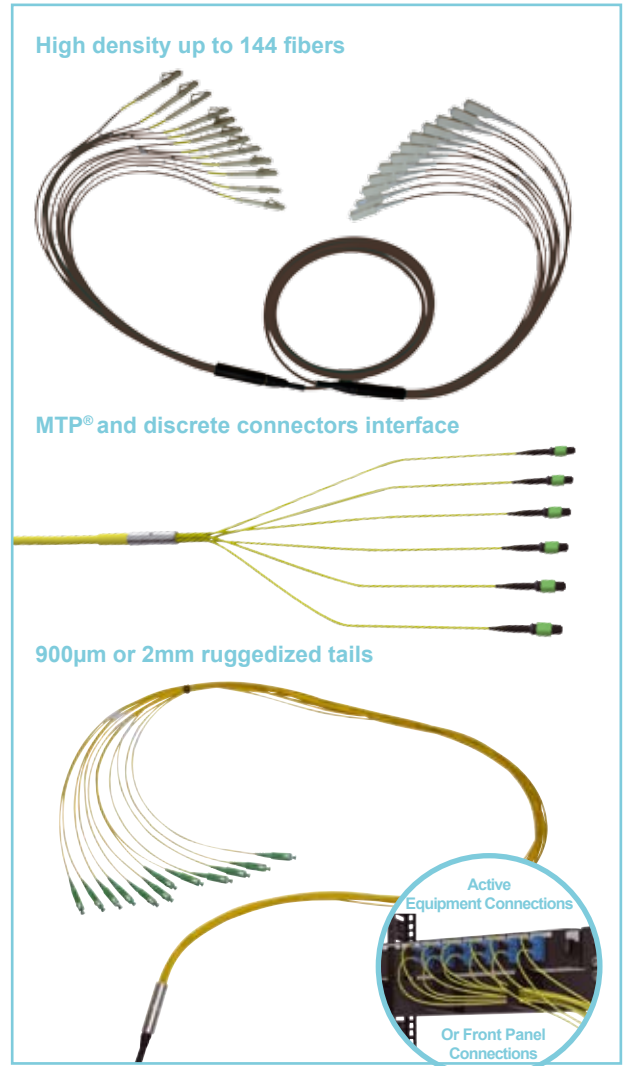
Description

FirstLight Prime is a special design platform for multifiber 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 fibers and can feature both 900µm and ruggedized 2mm tail leads. Assemblies can comprise of both multifiber MTP and discrete connectors, making the FirstLight Prime a flexible hybrid solution for diverse applications. The FirstLight Prime a flexible hybrid solution for diverse applications.

Features

- ▶ OS1/2, G657A1, OM1, OM2, OM3, OM4 fiber grade
- ▶ Up to 48 fibers
- ▶ 900µm or 2mm ruggedized tails
- ▶ Gel Filled/ Dry Loose Tube DLT cable
- ▶ Armoured cable available
- ▶ Int/Ext LSZH, Ext PE jacket types
- ▶ Accessory - reusable expandable pulling sock:
 - ▶ RPS1225 for core counts <=24
 - ▶ RPS1625 for core counts >24

- ▶ **High Pulling Tension-** FirstLight Prime breakout provides superior 1000N tensile strength.
- ▶ **Ultra High Density-** First Light Prime can scale up to 144 fibres for very high density Data Centre or Central Office application.
- ▶ **Hybrid MTP and Discret Connector Interface-** FirstLight Prime can be used as high density multifiber MTP ruggedized trunk or ruggedized MTP to LC or SC fanouts.
- ▶ **900µm/ 2mm Tails Selection-** Ruggedized 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 MTP Elite, 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 application.



Applications

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

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 Performance

CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS	CONNECTOR MATING	IL AVERAGE	IL MAX	RETURN LOSS
MTP® Elite (MM)	0.10 dB	0.35 dB	NA	MTP® Elite (SM)	0.10 dB	0.35 dB	>60dB
MTP® (MM)	0.20 dB	0.60 dB	NA	MTP® (SM)	0.25 dB	0.75 dB	>60dB
Discrete (MM)	0.15dB	0.30dB	NA	Discrete (SM)	0.18dB	0.25dB	>55/65dB*
Discrete Premium (MM)	0.08dB	0.15dB	NA	Discrete Premium (SM)	0.12dB	0.30dB	>55/65dB*

Cable Performance

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



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Multifibre FirstLight Prime Cable Assemblies

V8304

Technical Specification

Element	Characteristic
Fibre	OS1/OS2, 6.657A1, OM1, OM2, OM3, OM4 (ISO/IEC 60793)
Cable	Loose Tube 2-48 cores (ISO/IEC 60794) Gel Filled: OD MAX 24 cores 6.5 ± 0.3mm / OD MAX 48 cores 9.7 ± 0.4mm Dry Loose Tube: OD MAX 24 cores 6.4 ± 0.3mm / OD MAX 48 cores 9.5 ± 0.4mm Jacket material: LSZH, PE; Jacket color: Black
Packaging	Lengths 100– Heavy Duty PE bag / Length > 100m– Drum
Operating Temperature	-20 ~ +60°C
Storage Temperature	-40 ~ +70°C

Up to 48x900µm Tails Multifiber Loose Tube Assembly

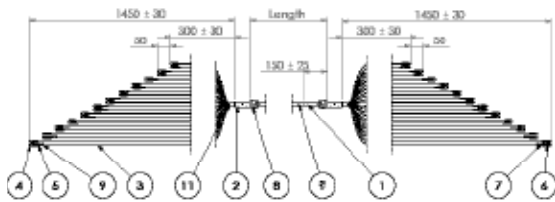


Diagram is for illustration. See Sheet 3 for standard stagger lengths. Fibre count from 36 - 48 fibres.

Tails of both ends protected by conformed high crush resistant tubing with end cap.

Optional reusable pulling sock can be used on either end:
- RFS1225 with M25 Gland

No.	Description	Qty.
1	36 - 48 Fibre Multi Loose Tube Cable	1
2	Ruggedised Breakout Module (Ø21mm)	2
3	900µm Overboots (Solid Coloured)	24
4	Connector 1	N
5	Connector 2	N
6	Connector 1 Boot	N
7	Connector 2 Boot	N
8	M25 Gland	2
9	Channel Identification Marker (Clip-On)	N/A
10	Serial Number Label (Wrap Around)	1
11	Spill Retainer (Expandable Sleeve)	2

Length tolerances:

- Ø14 100mm (Length ±0.5mm)
- Ø14 100mm (Length ±0.5mm)
- Ø14 100mm (Length ±0.5mm)
- Ø14 100mm (Length ±0.5mm)

Up to 24x2mm Tails Multifiber Loose Tube Assembly

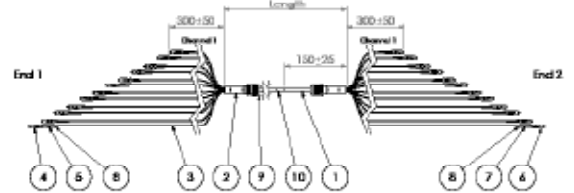


Diagram is for illustration. See Sheet 2 for standard stagger lengths. Fibre count can be up to 24 fibres.

Tails of both ends protected by conformed high crush resistant tubing with end cap.

Optional reusable pulling sock can be used on either end:
+ For up to 12 core RFS1225 with PG12.5 Gland
+ For over 12 core RFS1225 with M25 Gland

No.	Description	Qty.
1	Loose Tube Cable	1
2	Breakout Module	2
3	2mm Fusion Splicing Tubing	-
4	Connector End 1	-
5	Connector End 1 2mm Boot	-
6	Connector End 2	-
7	Connector End 2 2mm Boot	-
8	Channel Identification Marker (C-Clip)	-
9	Gland	2
10	Serial Number Label (Sheath)	1

Length tolerances:

- Ø14 100mm (Length ±0.5mm)
- Ø14 100mm (Length ±0.5mm)
- Ø14 100mm (Length ±0.5mm)
- Ø14 100mm (Length ±0.5mm)

Part Number Generator

PRE	Fiber	Connector End A				Connector End B*				Fiber Type		Cable Construction		Cable
	2	LC	LC	FC	FC	LC	LC	FC	FC	OS1/OS2	09	Dry Loose Tube 900µm	DLTP	XX
	4	LC/APC	LCA	FC/APC	FCA	LC/APC	LCA	FC/APC	FC	G.657A1	A1	Dry Loose Tube 2mm	DLTR	
	6	SC	SC	E2000	E2	SC	SC	E2000	E2	OM1	62	Loose Tube 900µm	LTP	
	8	SC/APC		E2000/APC	E2A	SC/APC	SCA	E2000/APC		OM2	50	Loose Tube 2mm	LTR	
	12	ST	ST			ST	ST			OM3	OM3			
	16									OM4	OM4			
	24													
	48													

MTP is a registered trademark of US Conec Ltd



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