

Miniflex[®]

Patch Cables & Pigtails



Features & Benefits

- ITU-T: G.657, & G.651
- Breakout products with pigtails & individual products
- Complies with IEC 60794-1-2
- REACH & RoHS compliant
- Low insertion and return loss with certification
- Multiple industry standard connector options
- Multi-fiber connectors
- Features Miniflex[®] bend limiting technology
- Ultra light-weight & high crush resistance
- Inherent kink resistance
- Customizable on request



Overview

Miniflex[®] Patch cables and Pigtails are high performance cables suitable for use in all types of fiber networks. These PPC cables are manufactured using a state-of-the-art controlled manufacturing process to operate over the full range of single-mode and multi-mode wavelengths.

PPC's Patch Cables and Pigtails incorporate Miniflex's robustness, while maintaining their inherent flexibility. PPC's Miniflex Patch Cables and Pigtails are terminated with high quality connectors, including the Balistix[™] pushable connectors, which provide low insertion loss and high return loss. Each cable is supplied with a unique serial number for traceability. Miniflex Patch cables and Pigtails are available with all types of single-mode and multi-mode fibers.

Applications

- FTTH / FTTX – Indoor & Outdoor
- FTTP and Campus Networks
- Telecoms
- Transport - Automotive
- Broadband Networks
- Data Infrastructure

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Technical Data

Mechanical Performance

Fiber Count	Weight	O.D.	Sheath Thickness	Tension	Crush	Minimum Bend Radius	
						Installation	Operation
250µm	kg/km (lbs/km)	mm (in)	mm (in)	N (lb)	N (lb)	mm (in)	mm (in)
1, 2 & 4	~4 (~8.8)	2.2 (.08)	0.5 (.02)	100 (22.5)	950 (214)	11 (.4)	22 (0.9)
1 (900 µm)	8.1 (5.4)	3.0 (.1)	0.8 (.03)	100 (22.5)	950 (214)	15 (.6)	30 (1.2)
1, 2, 4, 6, 8 & 12	7-8 (15.4-17.6)	3.0 (.1)	0.8 (.03)	100 (22.5)	950 (214)	15 (.6)	30 (1.2)

Material	Applications	Fire Rating	Color	Operating Temp	Crush
		EN / UL		°C (°F)	N
PBT	Indoor-Outdoor	Eca / General	Black*	-40 to 80 (-40 to 176)	950N
PBIO	Indoor-Outdoor	Cca / Riser	White*	-30 to +70 (-22 to 158)	1500N

*Other colors available upon request

Transmission Performance Specification

Item	Single-mode	Single-mode 900µm	Multi-mode
Specification	G657 A1	G657 A2	OM3
Attenuation (850 / 1300 nm)	n/a	n/a	3.5/1.5 dB/km
Attenuation (1310 / 1550 nm)	0.4/0.3 dB/km	0.4/0.3 dB/km	n/a
Attenuation at 1383nm	≤ 0.32 dB/km	n/a	n/a
Attenuation at 1625 nm	< 0.24 dB/km	< 0.24 dB/km	n/a
Refractive Index at 1310nm, 1550nm	1.467, 1.468	1.467, 1.468	n/a
Refractive Index at 850nm, 1300nm	n/a	n/a	1.482, 1.477
Proof test	0.69 GPa (100 kpsi), 1% min.	0.69 GPa (100 kpsi), 1% min.	0.69 GPa (100 kpsi), 1% min.
Cladding diameter	125 ± 0.7µm	125 ± 0.7 µm	125 ± 1.0µm
Coated diameter	235µm to 245µm	235µm to 245µm	237µm to 247µm
Core/Cladding concentricity error	≤ 0.5µm	≤ 0.5 µm	≤ 1.0µm
Coating concentricity error	≤ 12µm	≤ 12µm	≤ 6µm
Macro bend loss	(1550 nm)	(1550 nm)	(850 and 1300 nm)
10 turns at 50mm diameter	≤ 0.01 dB	n/a	≤ 0.2 dB
10 turns at 15 mm diameter	≤ 0.2 dB	≤ 0.03 dB	n/a
1 turn at 10mm diameter	≤ 0.2 dB	≤ 0.10 dB	n/a
1 turn at 7.5mm diameter	n/a	≤ 0.50 dB	n/a
Temp. range (operation) -60°C to 85°C (-76°F to 185°F)	max attenuation change ≤ 0.05 dB/km		max attenuation change ≤ 0.1 dB/km
Coating Strip Force	1.3 to 8.9 N		1.3 to 8.9 N
Insertion Loss	≤ 0.3 dB (SC, LC, FC, ST & E2000)		
Return Loss	≤ 45dB (UPC); ≤ 60dB (APC)		

This product may be protected by one or more patents • For further information, please visit: www.ppc-online.com/patents

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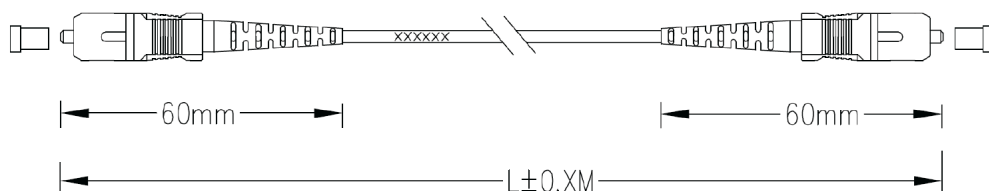
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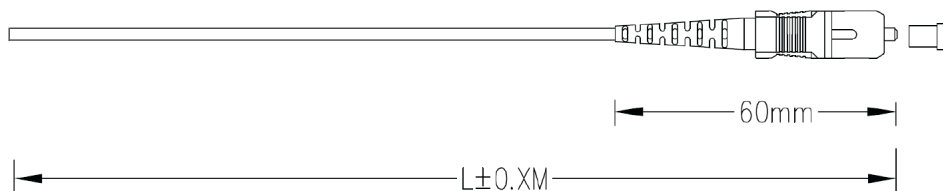


Mechanical Drawings

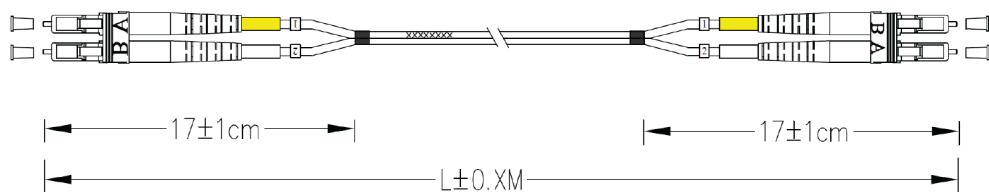
Simplex



Pigtail



Duplex



Ordering Information

Example: MX13PBW22S3S510M

MX	1	3	PB	B	2	1	S3	S5	010	M
	Number of Fibers	Cable Diameter	Material	Color	Fiber Diameter	Fiber Type	Connector 1	Connector 2	Length	Unit of Measure
MX	1, 2, or 4	3 - 3mm	PB - standard PBT	B - black	2 - 250um	1 - G.657.A1	F3 - FC UPC		XXX	F - Feet
		2 - 2mm	RI - Riser	W - white	9 - 900um	2 - G.657.A2	F5 - FC APC			M - Meters
							L3 - LC UPC			
							L5 - LC APC			
							NC - no connector			
							S3 - SC UPC			
							S5 - SC APC			
							ST3 - ST UPC			
							ST5 - ST APC			

Other connector, fiber and cable color options available on request

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