

Fibre Optic Patch Leads



Fibre optic patch leads (jumpers, assemblies or patchcords) are used as the connection medium for virtually all optical fibre networks.

FOS has a range of factory terminated patch leads to suit almost any network. A broad range of fibre type, cable construction, sheath colour and connector types are available to suit your requirements.

All FOS patch leads are factory tested and hold a 15 year guarantee. FOS manufacture all patch leads to the highest standards using only the highest grade components.

Applications

- Telecommunications interconnection points
- Data centre equipment, cross connect and lead-ins
- LAN, SAN and Optical Channel Fibre networks
- FTTx end user patch points
- Communications room equipment patching
- Fibre test equipment

Features & Benefits

- Factory machine polished ferrules ensure high quality low loss connections
- Ultra high performance zirconia ferrules
- Durable construction provides reliable mating every time
- Standards compliant insertion and return loss
- Fully factory tested using standards compliant test methods
- 15 year guarantee on workmanship
- Broad stockholding, plus any length made to order
- Specialists in uncommon connectors, hybrid leads & coloured varieties



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For further information:
www.fibreoptic.com.au
+61 3 9757 3000

Technical Specifications

Applicable Connectors	SC, SCA, LC, LCA, ST, FC ^a			
Fibre Mode	OM1	OM3	OM4	OS1/2
Core/Cladding (um)	62.5/125	50/125	50/125	9/125
Fibre Conformance	TIA/EIA 492AAAA	ITU G651.1	ITU G651.1	ITU G652.D / G657A.2 ^b
Insertion Loss (max dB)	0.30	0.30	0.30	0.25
Insertion Loss (avg dB)	0.15	0.15	0.15	0.18
Insertion Loss (random)	0.20	0.20	0.20	0.18
Return Loss (dB)	N/A	N/A	N/A	APC: >60 PC: >50
Jacket Material	Low Smoke Zero Halogen (LSZH) or Polyvinyl Chloride (PVC)			
Jacket Diameter (mm)	0.9, 2.0 or 3.0			
Reinforcing Member	Aramid Yarn			
Crush (N/100mm ²)	1000 ^c			
Tensile Load Short Term (N)	16 ^c			
Tensile Load Long Term (N)	80 ^c			
Operating Temp (°C)	-20 to +60			

^a Contact FOS for non standard connector specifications

^b G657.A2 available by request - MOQ applies

^c Excludes 900um jacket

Applicable Standards

Insertion Loss	All SC, SCA, LC, LCA, ST, FC patch leads comply with the loss requirements of ISO/IEC 61300-3-4, ISO/IEC 61300-3-34 & AS/NZS ISO/IEC 14763.3
Return Loss	All singlemode patch leads comply with the return loss requirements set out in ISO/IEC 61300-3-6
Cable Attenuation	Cable attenuation falls below levels specified in AS/NZS 3080
Testing	All testing is completed with reference grade patch leads and precision zirconia sleeve adapters and meet all requirements for testing in AS/NZS ISO/IEC 14763.3
Fibre Standards	Singlemode patch leads meet ITU 652.D & TIA/EIA 492 CAAA requirements OM3 & OM4 patch leads meet ITU 651.1 & TIA/EIA 492 AAAB requirements OM1 multimode patch leads meet requirements set out in TIA/EIA 492 AAAA
Low Smoke Zero Halogen	All LSZH patch leads meet the requirements for flame and fire retardant properties, low smoke opacity and nil halogens as set out in IEC 60332-1, IEC 60332-3, IEC 1034 1/2, & IEC 60754-1/2

Test Procedures

Connector Surface Inspection

In order to ensure all connector endfaces are devoid of scratches and free of contamination, video inspection becomes necessary. All FOS patch leads undergo visual inspection using a 400x magnification optical connector microscope to ensure all end face conditions meet the visual inspection criteria as set out in the relevant Australian/international test standards.

Insertion and Return Loss Testing

All FOS patch leads are factory tested to meet or exceed Standards compliant insertion loss (IL) and return loss (RL). RIFOCS modular series test equipment is employed to individually test every connector termination to ensure the IL and RL for all patch leads is within specification.

Quality optical performance testing is vital for patch lead performance and overall network stability. Test results are included in all FOS manufactured patch leads.

Geometric Inspection

In order to ensure proper physical contact between connectors while mated, ferrule and end face geometry must remain within specification. Maintaining correct connector geometry provides reliable, repeatable mating and helps avoid core and endface damage. DORC non contact optical interferometer is employed to ensure connector geometry requirements are met.

Ordering Information

D M3 - LC SC 10M - 2 RD (- WH)

Core Count	Cable Mode	Connectors	Length (m)	Cable Diam.	Jacket Colour	Boot Colour(s)
S: Simplex	S: OS1/2	SC: SC/UPC		9: 900um	AQ: Aqua	BK: Black
D: Duplex	M1: OM1	SCA: SC/APC		2: 2.0mm	BU: Blue	RD: Red
	M3: OM3	LC: LC/UPC		3: 3.0mm	BK: Black	YL: Yellow
	M4: OM4	LCA: LC/APC			EVT: Erica Violet	Note: Leave blank for standard boot colours
		LCS: LC/UPC Simplex			GN: Green	
		ST: ST/UPC			GY: Grey	
		FC: FC/UPC			OG: Orange	
		FCA: FC/APC			PL: Purple	
		E2KA: E2000/APC			PK: Pink	
		MTRJM: MTRJ Male			RD: Red	
		MTRJF: MTRJ Female			WH: White	
		MU			YL: Yellow	
		FDDI				
		SMA				
		DIN				
		ESCON				

Contact FOS for any further variations

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