

# Guide to Patch Cords

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# Telcom Patch Cords

## For Central Office / Telcom

### Description

Telcom patch cords are designed for low loss telecommunication applications. Our patch cords provide flexible interconnection to active equipment, passive optical devices and cross-connects. They are terminated with premium grade zirconia ferrule connectors which help assure high transmission quality and low optical power loss.

### Features / Benefits

- ▶ Enhanced optical performance to meet tight Telcom power budgets
- ▶ New flexible boot allows connection in compact spaces
- ▶ Standard LC and SC connector types
- ▶ Standard and bend insensitive Singlemode Fibre types, G652D, G657 A1, G657 A2
- ▶ Cable available with IEC 60332-3-24 fire performance
- ▶ Available in standard and custom lengths
- ▶ IEC, EIA/TIA and Telecordia compliant
- ▶ RoHS, REACH and SvHC compliant

### Applications

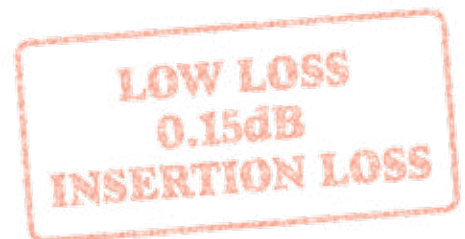
- ▶ Telcom
- ▶ High Bandwidth Ethernet and Fibre Channel
- ▶ Storage Area Networks (SANs)

### Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.15 dB	IEC 61300-3-4
Max IL/Random	0.30 dB	IEC 61300-3-34
Ave/Master	0.12 dB	IEC 61300-3-4
Ave/Random	0.12 dB	IEC 61300-3-34
Return Loss UPC/APC	55/65 dB	IEC 61300-3-6

Mechanical Properties	Value	Conformance
Mechanical endurance	500 matings	IEC 61300-2-2
Vibration	10-55 Hz, 0.75 amplitude	IEC 61300-2-1
Drop	5 drops at 1m	IEC 61300-2-12
Cable retention	50N	IEC 61300-2-4
Cable torsion	1.5kg-2.5kg for 2mm-3mm cable diameter	IEC 61300-2-5

Connector Type	Conformance	Singlemode	Singlemode Duplex
SC Connector	IEC 61754-4	SM PC – Blue, Blue Boots APC – Green, Green Boots	SM PC – Blue, Blue Boots APC – Green, Green Boots
LC Connector	IEC 61754-20	SM PC – Blue, White Boots APC – Green, White Boots	SM PC – Blue, White Boots APC – Green, White Boots



# Technical information

## For Central Office / Telcom

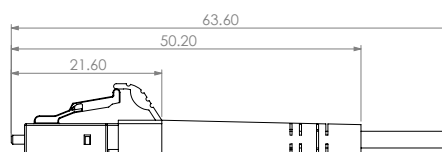
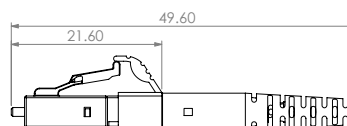


### Cable Specification

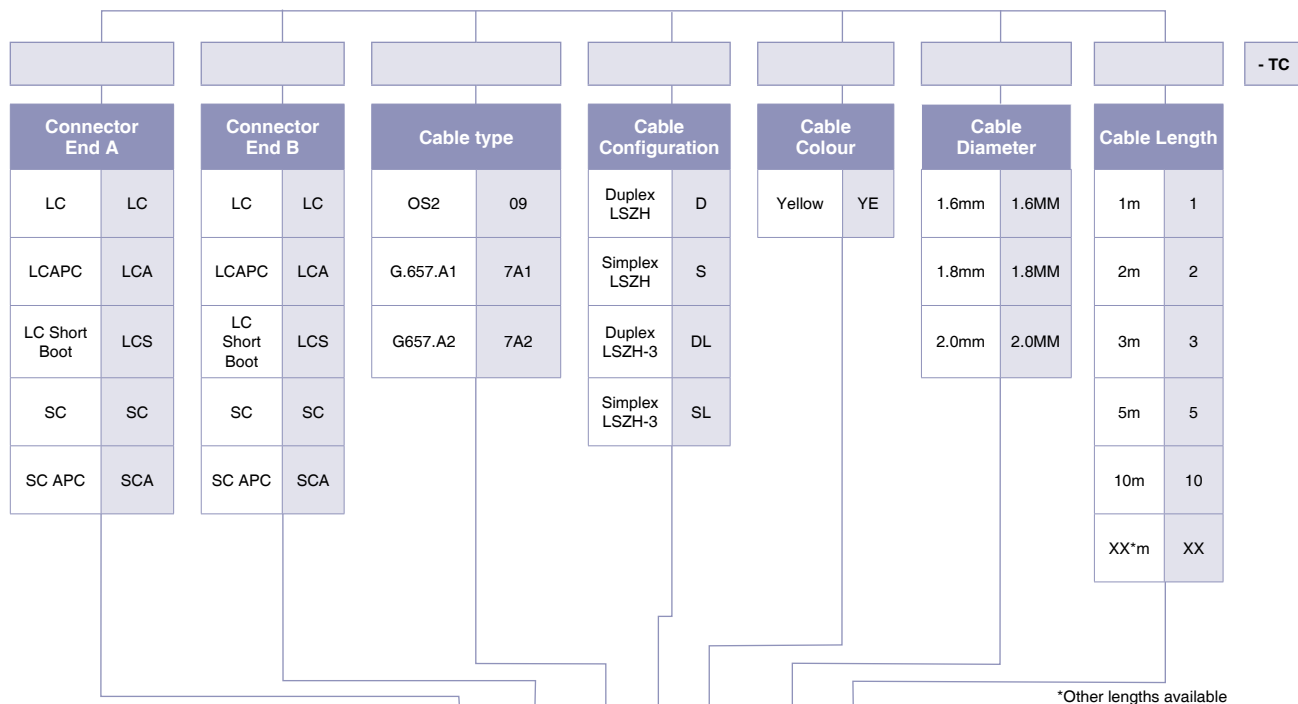
Characteristics	
Cable Material	LSZH*
Strength Member	Aramid
Crush (N)	1000
Operating Temperature (°C)	-20 to 60
Fire Specification	IEC 60332-1
Secondary Buffer Diameter (2.0mm) µm	900±50
Secondary Buffer Diameter (1.6mm and 1.8mm)	600±50
Minimum Bend Radius (mm)	10D (installed) - 20D (loaded)

\*Also available in PVC

### Technical Specification



### Part Number Generator



Example Part Number: **LCS LC 7A1 D YE 1.6MM 1**  
**LCSLC7A1DYE1.6MM-TC** will configure a 1 metre LC duplex Patch cord made with 1.6mm zip cable G.657.A1

# OS1/OS2 G657

## LC Short Boot Patch Cords

### For Central Office / Telecom

LC patch cords supplied with a short boot are ideal for high density applications with tight space requirements. The connector length from tip to boot assembly is only 40mm, compared to 66mm for standard LC – 40% shorter!

Our patch cords have the added benefit of being supplied with reduced bend sensitivity ITU-T G657 singlemode optical fibre which exhibit much lower optical power loss under bend conditions while remaining compatible with conventional cabling.

Our LC Short boot patch cords are designed to meet IEC, EN and Telcordia GR 326 requirements.

### Features

- ▶ Short length – allows up to 40 mm space between rack and closed cabinet door – 25mm extra!
- ▶ Enhanced flexibility of the boot maintains minimum bend radius
- ▶ No heatshrink system – improved cable flexibility
- ▶ Cable dimensions of 2.0mm, 1.8mm, 1.6mm for optimising air flow space

### Applications

- ▶ Central Office
- ▶ Passive Optical Networks (PON)
- ▶ FTTx
- ▶ CATV / VIDEO
- ▶ WDM / DWDM
- ▶ Data centres
- ▶ LAN and WAN



### Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.18 dB	IEC 61300-3-4
Ave/Random	0.18 dB	IEC 61300-3-34
Return Loss UPC/APC	55/65 dB	IEC 61300-3-6

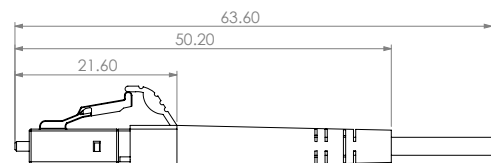
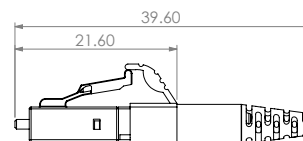
### Cable Specification

Characteristics	Simplex/Duplex
Cable Material*	LSZH
Strength Member	Aramid
Crush (N)	1000
Operating Temperature (°C)	-20 to 60
Fire Specification	IEC 60332-1

\* PVC (RISER) also available

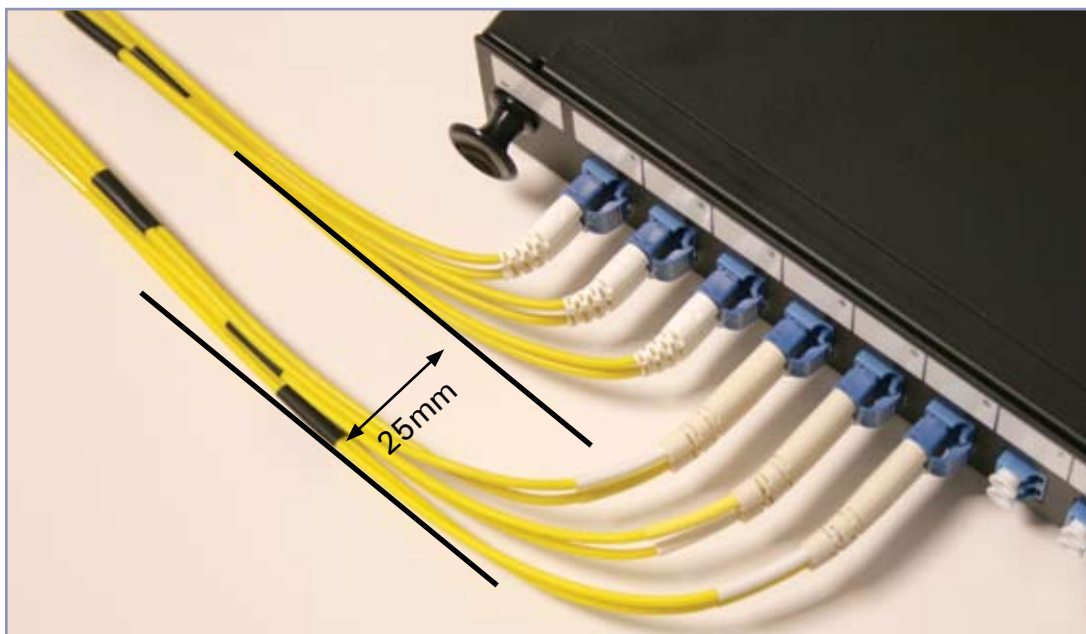
### Fibre Specification

Characteristics	
Attenuation (dB) / km	0.38 @ 1310nm / 0.25 @ 1550nm
Chromatic Dispersion (ps/nm x km)	3.0 @ 1310nm / 18.0 @ 1550nm



# Technical information

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### Part Number Generator

Connector End A		Connector End B		Cable type		Cable Configuration		Cable Colour		Cable Diameter		Cable Length	
LC Short Boot	LCS	LC Short Boot	LCS	G.657.A1	7A1	Duplex LSZH	D	Yellow	YE	1.6mm	1.6MM	1m	1
LC/APC Short Boot	LCAS	LC/APC Short Boot	LCAS	G.657.A2	7A2	Simplex LSZH	S			1.8mm	1.8MM	2m	2
		LC	LC	G.657.B3	7B3	Duplex LSZH-3	DL			2.0mm	2.0MM	3m	3
		LC/APC	LCA			Simplex LSZH-3	SL					5m	5
		FC	FC			Flat Duplex	FD					10m	10
		FC/APC	FCA									XX*m	XX
		SC	SC										
		SC/APC	SCA										
		ST	ST										

Example Part Number: **LCS LC 7A1 D YE 1.6MM 1**

**LCSLC7A1DYE1.6MM-TC** will configure a 1 metre LC duplex Patch cord made with 1.6mm zip cable G.657.A1 RBS with short boot at one end

\*Other lengths available



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