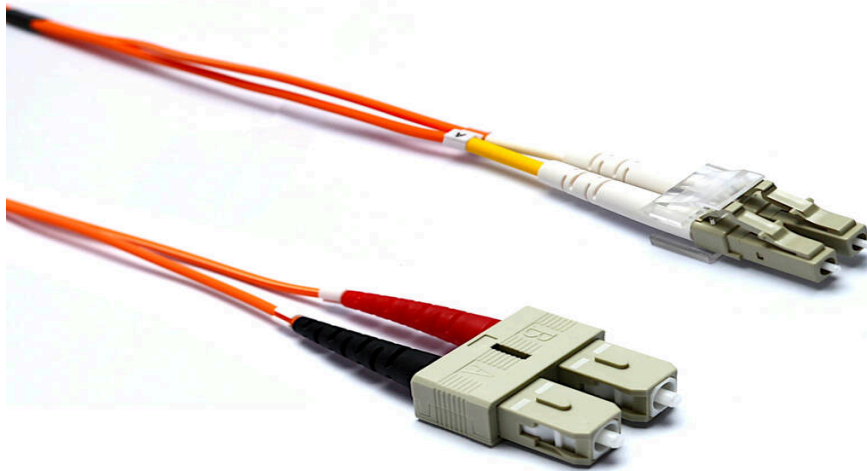


# Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 0.5 m

Part Code: 202-178

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CIBSE TM65 Embodied Carbon: 0.112 kg CO2e



## Main Features

- / 100% optically tested, test certificate included
- / Zirconia ceramic UPC ferrules
- / Bend insensitive construction
- / Low loss connectors
- / Polarity changeable (duplex connectors)
- / 25 Year system warranty

## Product Overview

Excel OM2 50/125  $\mu\text{m}$  duplex patch leads are manufactured from the highest quality 900  $\mu\text{m}$  buffer/jacket optical fibre, terminated with ceramic ferrule connectors.

Each cable has strain relief boots to prolong and maintain performance levels of the assembly, transmit and receive 'legs' of each duplex cable are identified by means of ring type cable marker fixed to each end the assembly. A short distance from these identification rings heat shrink is applied to maintain an easy to manage bonded two fibre cable, finally a label containing a unique batch number is fixed to the centre of cable for quality and traceability purposes.

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## Product Specifications

Feature	Values
Fibre type	Multi mode 50/125
Category	OM2
Number of Cores	2
Outer diameter sheath single fibre	2 mm
Cable type	Duplex
Length	0.5 m
Type of connector connection 1	LC
Type of connector connection 2	SC
Outer sheath colour	Orange
Strain relief boot	Push-on
Flame retardant according to IEC 60332-1-2	yes
Low smoke (acc. IEC 61034-2)	yes

## Cable specifications

Features	Values	ST Assemblies	SC Assemblies	LC Assemblies
Cable Construction	Duplex zip-cord			
No. of Fibres	2			
Cable Dimensions		2.8 x 5.7mm	2.8 x 5.7mm	2.0 x 4.0mm
Colour	Orange			
Strength members	Aramid Yarn			

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Temperature range	<b>-20C to +70C</b>			
Connector Material		<b>Nickel plated Brass</b>	<b>Composite</b>	<b>Composite</b>
Minimum bend radius (loaded)	<b>10 x cable diameter</b>			
Connector Ferrule		<b>2.5mm Zirconium ceramic</b>	<b>2.5mm Zirconium ceramic</b>	<b>1.25mm Zirconium ceramic</b>
Ferrule End Face	<b>PC Polish</b>			
Connector Insertion Loss	<b>Max. 0.3dB</b>			

## Fibre specifications

Features	Values
Core diameter	<b>50 ± 2.5µm</b>
Core Non-circularity	<b>≤5%</b>
Core-Cladding Concentricity Error	<b>≤1.5µm</b>
Cladding diameter	<b>125 ± 1.0µm</b>
Cladding Non-circularity	<b>≤1.0%</b>
Primary Coating diameter	<b>245 ± 7µm</b>
Coating-Cladding Concentricity Error	<b>≤10.0µm</b>
Coating Non-circularity	<b>≤6.0%</b>
Secondary coating diameter	<b>900 µm nominal</b>
Max. attenuation at 850nm	<b>2.3dB/km</b>
Max attenuation at 1300nm	<b>0.6dB/km</b>

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Refractive Index at 850nm	<b>1.482</b>
Refractive Index at 1300nm	<b>1.477</b>
Bandwidth at 850nm	<b>500 MHz.km</b>
Bandwidth at 1300nm	<b>500 MHz.km</b>
Numerical Aperture	<b>0.200 ±0.015</b>
Zero Dispersion Wavelength	<b>1295-1340nm</b>
Macrobending Loss - 2 turns, 15mm Radius, 850nm	<b>≤0.10dB</b>
Macrobending Loss - 2 turns, 15mm Radius, 1300nm	<b>≤0.30dB</b>
Macrobending Loss - 2 turns, 7.5mm Radius, 850nm	<b>≤0.2dB</b>
Macrobending Loss - 2 turns, 7.5mm Radius, 1300nm	<b>≤0.5dB</b>
Coating Strip Force (typical)	<b>1.5N</b>
Coating Strip Force (peak)	<b>1.3 - 8.9N</b>

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## Cross-section diagram



## Product Schematics



- 1 ST Dust cover
- 2 ST 3.0 multimode connector\*
- 3 ST 3.0 Black strain relief boot\*
- 4 ST 3.0 Red strain relief boot\*
- 5 Identification ring
- 6 Black heatshrink tubing
- 7 3.0mm Duplex OM1 62.5/125 LSOH Grey or Orange cable\*

\* 2.0 when used in hybrid cables with LC or MTRJ connectors

- 1 SC Dust cover
- 2 SC 3.0 Beige multimode connector\*
- 3 SC Beige clip
- 4 SC 3.0 Black strain relief boot\*
- 5 SC 3.0 Red strain relief boot\*
- 6 Identification ring
- 7 Black heatshrink tubing
- 8 3.0mm Duplex OM1 62.5/125 LSOH Grey or Orange cable\*

\* 2.0 when used in hybrid cables with LC or MTRJ connectors

- 1 LC Dust cover
- 2 LC 2.0 multimode simplex Beige connector
- 3 LC Beige clip
- 4 LC 2.0 white boot
- 5 White heatshrink tubing
- 6 Yellow heatshrink tubing
- 7 Identification ring
- 8 Black heatshrink tubing
- 9 2.0mm Duplex OM1 62.5/125 LSOH Grey or Orange cable

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## Standards

Applicable standard	Detail
BS EN 60332-1-2:2004+A11:2016	Tests on electric and optical fibre cables under fire conditions - Test for vertical flame propagation for a single insulated wire or cable. Procedure for 1 kW pre-mixed flame
IEC 60793-1-1:2022	Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance
IEC 60793-2:2015	Optical fibres - Part 2: Product specifications - General
IEC 60793-2-10:2017	Sectional specification for A1 multimode fibres
IEC 60793-1-20:2014	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry
IEC 60793-1-21:2001	Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry
IEC 60793-1-22:2001	Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement
IEC 60793-1-30:2010	Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test
IEC 60793-1-31:2010	Optical fibres - Part 1-31: Measurement methods and test procedures - Tensile Strength
ITU G.651.1	Characteristics of a 50/125 $\mu\text{m}$ multimode graded index optical fibre cable for the optical access network
EN 50173-1:2018	Information technology. Generic cabling systems - General requirements
EN 50173-2:2007 + A1:2010	Information technology. Generic cabling systems - Office premises
IEC 61754-1:2013	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 1: General and guidance
IEC 61754-2:1996	Fibre optic connector interfaces - Part 2: Type BFOC/2,5 connector family

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IEC 61754-4:2013	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4: Type SC connector family
IEC 61754-4-100:2015	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4-100: Type SC connector family - Simplified receptacle SC-PC connector interfaces
IEC 61754-20:2012	Fibre optic connector interfaces - Part 20: Type LC connector family
Directive 2011/65/EU (RoHS II)	Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment — compliant. Applies within EU member states).
Directive (EU) 2015/863 (RoHS III)	Amending Directive 2011/65/EU to add four phthalates (DEHP, BBP, DBP, DIBP) to Annex II — compliant.
Directive 2008/98/EC (WFD)	Waste Framework Directive — compliant. Implemented in the UK through the Waste (England and Wales) Regulations 2011 (SI 2011 No. 988).
ECHA SCIP Database	Compliant; product does not contain SVHCs (Substances of Very High Concern) as defined under REACH Article 33(1). Submission obligations met under EU REACH and UK REACH.
Regulation (EU) 2019/1021 (POPs)	EU Regulation on Persistent Organic Pollutants — compliant. For Great Britain, compliance is aligned with the Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020 (SI 2020 No. 1355).
UKSI 2012 No. 3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (UK RoHS) — compliant for Great Britain. Retained EU law, as amended by the Product Safety and Metrology (Amendment etc.) (EU Exit) Regulations 2019.

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## Part Code Table

Part Code	Description
200-093	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 10 m
200-094	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 15 m
200-095	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 20 m
200-168	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 1 m
200-169	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 2 m
200-170	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 3 m
200-171	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 5 m
200-172	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 1 m
200-173	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 2 m
200-174	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 3 m
200-175	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 5 m
200-176	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 1 m
200-177	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 2 m
200-178	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 3 m

# Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 0.5 m

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200-179	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 5 m
200-180	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 10 m
200-200	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 1 m
200-202	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 2 m
200-204	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 3 m
200-206	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 5 m
200-209	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 10 m
200-216	Excel Enbeam OM2 Fibre Optic Patch Lead ST-SC Multimode 50/125 DX LS0H Orange 1 m
200-218	Excel Enbeam OM2 Fibre Optic Patch Lead ST-SC Multimode 50/125 DX LS0H Orange 2 m
200-219	Excel Enbeam OM2 Fibre Optic Patch Lead ST-SC Multimode 50/125 DX LS0H Orange 15 m
200-220	Excel Enbeam OM2 Fibre Optic Patch Lead ST-SC Multimode 50/125 DX LS0H Orange 3 m
200-222	Excel Enbeam OM2 Fibre Optic Patch Lead ST-SC Multimode 50/125 DX LS0H Orange 5 m
200-224	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 1 m
200-226	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 2 m
200-227	Excel Enbeam OM2 Fibre Optic Patch Lead ST-SC Multimode 50/125 DX LS0H Orange 10 m
200-228	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 3 m
200-229	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H

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## Orange 5 m

200-236	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 10 m
200-237	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 15 m
200-238	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 20 m
200-265	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 10 m
200-266	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 15 m
200-267	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 20 m
200-286	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 15 m
200-287	Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H Orange 20 m
200-533	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 20 m
202-171	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 0.5 m
202-174	Excel Enbeam OM2 Fibre Optic Patch Lead LC-LC Multimode 50/125 DX LS0H Orange 30 m
202-178	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 0.5 m
202-181	Excel Enbeam OM2 Fibre Optic Patch Lead LC-SC Multimode 50/125 DX LS0H Orange 30 m
202-184	Excel Enbeam OM2 Fibre Optic Patch Lead LC-ST Multimode 50/125 DX LS0H Orange 0.5 m
202-191	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 0.5 m
202-194	Excel Enbeam OM2 Fibre Optic Patch Lead SC-SC Multimode 50/125 DX LS0H Orange 30 m

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Multimode 50/125 DX LS0H Orange 0.5 m



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202-197

Excel Enbeam OM2 Fibre Optic Patch Lead ST-ST Multimode 50/125 DX LS0H  
Orange 0.5 m