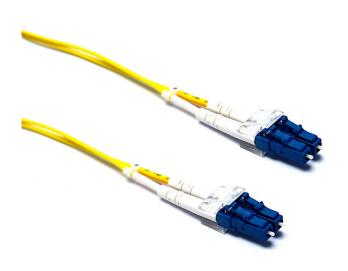
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- X 100% optically tested
- X Test certificate included
- X Low loss connectors
- X Zirconia ceramic PC ferrules
- X Polarity changeable (duplex connectors)
- X Bend insensitive construction
- X CIBSE TM65 Embodied Carbon: 0.092 kg CO2e

#### **Product Overview**

Excel OS2 9/125  $\mu$ m duplex patch leads are manufactured from the highest quality 900  $\mu$ 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.

#### **Product Specifications**

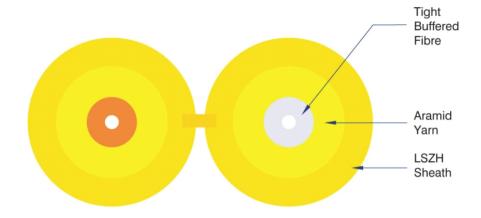
Feature	Values
Fibre type	Single mode
Category	OS2
Number of Cores	2
Outer diameter sheath single fibre	2 mm
Cable type	Duplex
Length	0.5 m
Type of connector connection 1	LC

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Type of connector connection 2	LC
Outer sheath colour	Yellow
Strain relief boot	Push-on
Flame retardant according to IEC 60332-1-2	yes
Low smoke (acc. IEC 61034-2)	yes

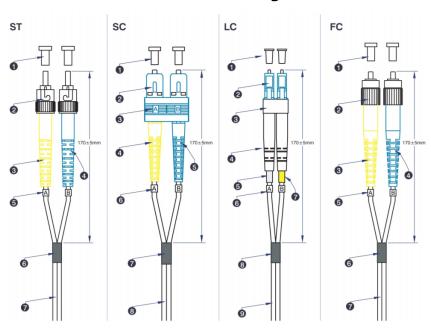
### **Cross-section diagram**



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### **Product drawing**



### **Cable specifications**

Features	Values	SC Assemblies	LC Assemblies
Cable Construction	Duplex zip-cord		
No. of Fibres	2		
Cable Dimensions		2.8 x 5.7mm	2.0 x 4.0mm
Colour	Yellow		
Strength members	Aramid Yarn		
Temperature range	-20C to +70C		
Connector Material		Composite	Composite
Minimum bend radius (loaded)	10 x cable diameter		
Connector Ferrule		2.5mm Zirconium ceramic	1.25mm Zirconium ceramic
Ferrule End Face	UPC Polish		
Connector Insertion Loss	Max. 0.3dB		

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### Fibre specifications

Features	Values
Mode Field diameter at 1310nm	8.4 - 9.2μm
Mode Field diameter at 1550nm	9.3-10.3μm
Cladding diameter	$125.0 \pm 0.7 \mu m$
Cladding Non-circularity	≤ 0.7%
Primary Coating diameter	235 - 245μm
Coating-Cladding Concentricity Error	≤ 12µm
Coating Non-circularity	≤ 6.0%
Core-Cladding Concentricity Error	≤0.5µm
Max. attenuation at 1310nm	≤0.35 dB/km
Max. attenuation at 1383nm	≤0.35 dB/km
Max. attenuation at 1460nm	≤0.25 dB/km
Max. attenuation at 1490nm	≤0.23 dB/km
Max attenuation at 1550nm	≤0.21 dB/km
Max attenuation at 1625nm	≤0.23 dB/km
PMD (typical value)	0.04 ps/km
Cut-off wavelength	1260nm
Zero dispersion wavelength	1300-1324 nm
Zero dispersion slope	≤0.092 ps/nm2.km
Refractive Index at 1310nm	1.466
Refractive Index at 1550nm	1.467
Macro-Bend Loss - 10 turns, 15mm radius, 1625nm	≤0.03dB
Macro-Bend Loss - 10 turns, 15mm radius, 1550nm	≤0.1dB
Macro-Bend Loss - 1 turn, 10mm radius, 1550nm	≤0.1dB
Macro-Bend Loss - 1 turn, 10mm radius, 1625nm	≤0.2dB
Macro-Bend Loss - 1 turn, 7.5mm radius, 1550nm	≤0.5dB
Macro-Bend Loss - 1 turn, 7.5mm radius, 1625nm	≤1.0dB
Coating Strip Force (typical)	1.5N
Coating Strip Force (peak)	1.3 - 8.9N

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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 $1\ \text{kW}$ 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-T G.652:2016	Characteristics of a single-mode optical fibre and cable
ITU-T G.657:2016	Characteristics of a bending-loss insensitive single-mode optical fibre and cable
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
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 61754-4-100:2015	Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part

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	4-100: Type SC connector family - Simplified receptacle SC-PC connector interfaces
ISO/IEC 11801-1:2017	Information technology - Generic cabling for customer premises: Part 1 General Requirements
RoHS-II/-III (2011/65/EU & 2015/863): 2023	Our products, demonstrate full adherence to the regulatory stipulations of the EU Directive 2011/65/EU (RoHS-II) and its corresponding delegated directive 2015/863 (RoHS-III).
WFD: 2023	Compliant to Waste Framework Directive
SCIP: 2023	Compliant - Does Not Contain Substances of Concern In articles as such or in complex objects (Products)
POPs (EU) No 2019/1021	EU Regulation for the restriction of Persistent Organic Pollutants.

#### **Part Number Table**

Part Number	Description
Part Number	Description
200-096	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 20 m
200-097	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 15 m
200-098	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 10 m $$
200-099	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 10 m
200-100	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 15 m
200-101	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 20 m
200-102	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 10 m $$
200-103	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 15 m
200-104	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 20 m
200-105	Excel Enbeam OS2 Fibre Optic Patch Lead ST-SC Singlemode 9/125 DX LS0H Yellow 15 m
200-107	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 10 m
200-108	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H

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	Yellow 15 m
200-109	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 20 m
200-201	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 10 m
200-203	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 15 m
200-205	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 20 m
200-251	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 1 m $$
200-252	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 2 m
200-253	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 3 m
200-254	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 5 m
200-255	Excel Enbeam OS2 Fibre Optic Patch Lead ST-SC Singlemode 9/125 DX LS0H Yellow 1 m $$
200-256	Excel Enbeam OS2 Fibre Optic Patch Lead ST-SC Singlemode 9/125 DX LS0H Yellow 2 m
200-257	Excel Enbeam OS2 Fibre Optic Patch Lead ST-SC Singlemode 9/125 DX LS0H Yellow 3 m
200-259	Excel Enbeam OS2 Fibre Optic Patch Lead ST-SC Singlemode 9/125 DX LS0H Yellow 5 m
200-261	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 1 m $$
200-262	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 2 m
200-263	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 3 m
200-264	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 5 m
200-268	Excel Enbeam OS2 Fibre Optic Patch Lead ST-SC Singlemode 9/125 DX LS0H Yellow 10 m
200-501	Excel Enbeam OS2 Fibre Optic Patch Lead FC-FC Singlemode 9/125 DX LS0H Yellow 1 m
200-502	Excel Enbeam OS2 Fibre Optic Patch Lead FC-FC Singlemode 9/125 DX LS0H Yellow 2 m
200-503	Excel Enbeam OS2 Fibre Optic Patch Lead FC-FC Singlemode 9/125 DX LS0H Yellow 3 m

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200-504	Excel Enbeam OS2 Fibre Optic Patch Lead FC-FC Singlemode 9/125 DX LS0H Yellow 5 m
200-505	Excel Enbeam OS2 Fibre Optic Patch Lead FC-FC Singlemode 9/125 DX LS0H Yellow 10 m
200-511	Excel Enbeam OS2 Fibre Optic Patch Lead FC-ST Singlemode 9/125 DX LS0H Yellow 2 m
200-513	Excel Enbeam OS2 Fibre Optic Patch Lead FC-ST Singlemode 9/125 DX LS0H Yellow 5 m
200-514	Excel Enbeam OS2 Fibre Optic Patch Lead FC-ST Singlemode 9/125 DX LS0H Yellow 10 m
200-515	Excel Enbeam OS2 Fibre Optic Patch Lead FC-ST Singlemode 9/125 DX LS0H Yellow 15 m
200-517	Excel Enbeam OS2 Fibre Optic Patch Lead FC-ST Singlemode 9/125 DX LS0H Yellow 1 m $$
200-534	Excel Enbeam OS2 Fibre Optic Patch Lead FC-SC Singlemode 9/125 DX LS0H Yellow 1 m
200-535	Excel Enbeam OS2 Fibre Optic Patch Lead FC-SC Singlemode 9/125 DX LS0H Yellow 2 m
200-536	Excel Enbeam OS2 Fibre Optic Patch Lead FC-SC Singlemode 9/125 DX LS0H Yellow 3 m
200-537	Excel Enbeam OS2 Fibre Optic Patch Lead FC-SC Singlemode 9/125 DX LS0H Yellow 5 m
200-538	Excel Enbeam OS2 Fibre Optic Patch Lead FC-SC Singlemode 9/125 DX LS0H Yellow 10 m
200-678	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 1 $\ensuremath{\mathrm{m}}$
200-680	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 2 m
200-682	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 3 m
200-684	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 5 m
200-686	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 1 $\ensuremath{\mathrm{m}}$
200-688	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 2 m
200-690	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 3 m
200-692	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 5 m

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200-694	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 1 m $$
200-696	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 2 m
200-698	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 3 m
200-699	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 5 m
202-172	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 0.5 m
202-175	Excel Enbeam OS2 Fibre Optic Patch Lead LC-LC Singlemode 9/125 DX LS0H Yellow 30 m
202-179	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 0.5 m
202-182	Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 30 m
202-185	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 0.5 m
202-188	Excel Enbeam OS2 Fibre Optic Patch Lead LC-ST Singlemode 9/125 DX LS0H Yellow 30 m
202-192	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 0.5 m
202-195	Excel Enbeam OS2 Fibre Optic Patch Lead SC-SC Singlemode 9/125 DX LS0H Yellow 30 m
202-198	Excel Enbeam OS2 Fibre Optic Patch Lead ST-ST Singlemode 9/125 DX LS0H Yellow 0.5 m

Excel is a world class premium performing end to end infrastructure solution designed, Manufactured, supported and delivered without compromise.

