

✗ 100% optically tested

✗ Test certificate included

✗ Low loss connectors

✗ Zirconia ceramic UPC ferrules

✗ Polarity changeable (duplex connectors)

✗ Bend insensitive construction

## Product Overview

Excel OS2 9/125 µm duplex patch leads are manufactured from the highest quality 900 µm 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          |
| Type of connector connection 2     | SC          |
| Outer sheath colour                | Yellow      |
| Strain relief boot                 | Push-on     |

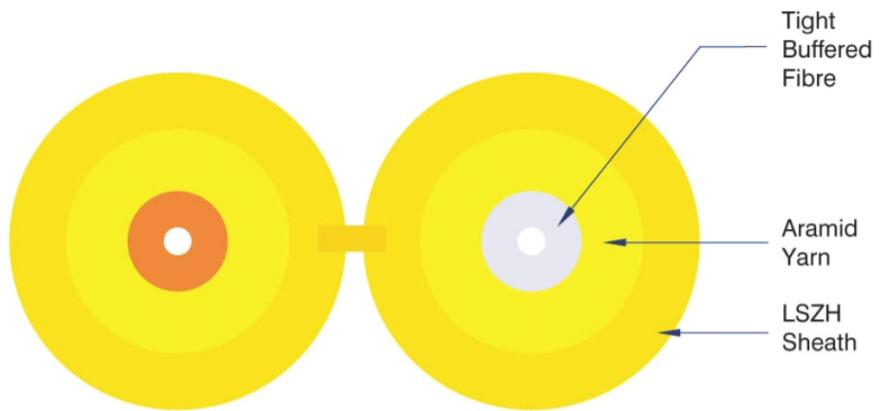
Flame retardant according to IEC 60332-1-2

yes

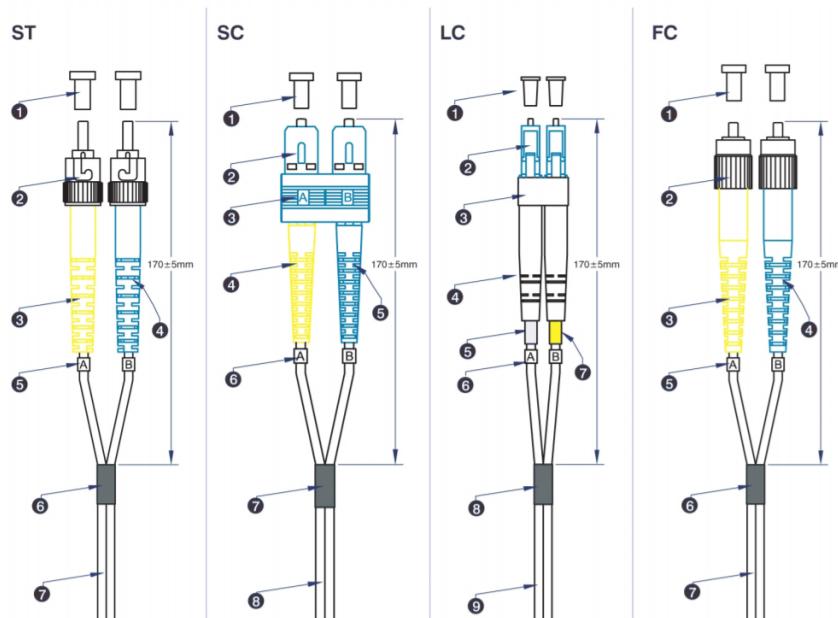
Low smoke (acc. IEC 61034-2)

yes

### Cross-section diagram



### 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          |                         |                          |

### Fibre specifications

| Features                             | Values                  |
|--------------------------------------|-------------------------|
| Mode Field diameter at 1310nm        | 8.4 - 9.2 $\mu$ m       |
| Mode Field diameter at 1550nm        | 9.3-10.3 $\mu$ m        |
| Cladding diameter                    | 125.0 $\pm$ 0.7 $\mu$ m |
| Cladding Non-circularity             | $\leq$ 0.7%             |
| Primary Coating diameter             | 235 - 245 $\mu$ m       |
| Coating-Cladding Concentricity Error | $\leq$ 12 $\mu$ m       |
| Coating Non-circularity              | $\leq$ 6.0%             |
| Core-Cladding Concentricity Error    | $\leq$ 0.5 $\mu$ m      |
| Max. attenuation at 1310nm           | $\leq$ 0.35 dB/km       |
| Max. attenuation at 1383nm           | $\leq$ 0.35 dB/km       |
| Max. attenuation at 1460nm           | $\leq$ 0.25 dB/km       |
| Max. attenuation at 1490nm           | $\leq$ 0.23 dB/km       |
| Max attenuation at 1550nm            | $\leq$ 0.21 dB/km       |
| Max attenuation at 1625nm            | $\leq$ 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/nm <sup>2</sup> .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                    |

## 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-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 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  |
|-------------|--|
| 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             |

# Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 0.5 m

Item Code: 202-179



|         |  |
|---------|--|
|         | 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 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  |

# Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 0.5 m

Item Code: 202-179



|         |  |
|---------|--|
| 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  |
| 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  |

# Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC Singlemode 9/125 DX LS0H Yellow 0.5 m

Item Code: 202-179



|         |   |
|---------|---|
| 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 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 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   |
| 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              |

Excel Enbeam OS2 Fibre Optic Patch Lead LC-SC  
Singlemode 9/125 DX LS0H Yellow 0.5 m

Item Code: 202-179

**excel**  
without compromise.

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 |

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without compromise.