

# Excel Enbeam OS2 Fibre Optic Patch Lead G.657.A1 SC/APC-SC/APC SM 9/125 SX Yellow 2 m

Part Code: 201-212

sales@excel-networking.com  
excel-networking.com

CIBSE TM65 Embodied Carbon: 0.144 kg CO2e



## Main Features

- / 100% Optically Tested
- / Low Loss Connectors
- / Bend insensitive construction
- / Test Certificate Included
- / Zirconia ceramic UPC ferrules
- / CIBSE TM65 Embodied Carbon: 0.144 kg CO2e

## Product Overview

Excel OS2 9/125 µm simplex patch leads are manufactured from the highest quality 900 µm G657A2 buffer/jacket optical fibre, terminated with ceramic ferrule connectors. Each cable has strain relief boots to prolong and maintain performance levels of the assembly. A label containing a unique batch number is fixed to the centre of cable for quality and traceability purposes.

## Product Specifications

Feature	Values
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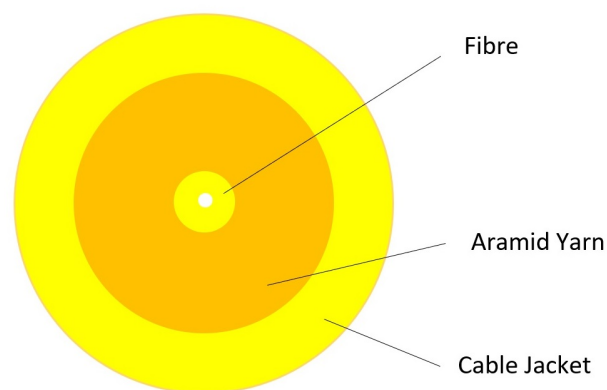
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Fibre type	Single mode
Category	OS2
Number of Cores	1
Cable type	Simplex
Length	2 m
Type of connector connection 1	SC
Type of connector connection 2	SC
Outer sheath colour	Yellow
Strain relief boot	Push-on
Flame retardant according to IEC 60332-1-2	yes
Low smoke (acc. IEC 61034-2)	yes

## Cross-section diagram

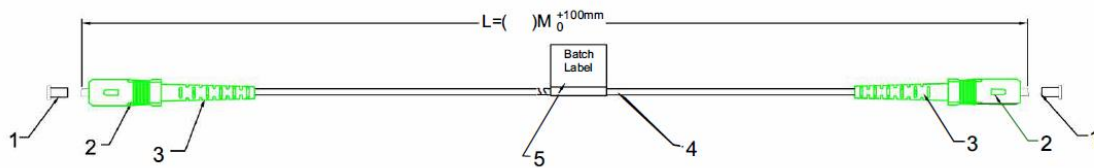


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## Product drawing



## Cable specifications

Features	Values
Cable Construction	<b>Simplex</b>
No. of Fibres	<b>1</b>
Cable Dimensions	<b>3 mm</b>
Colour	<b>Yellow</b>
Strength members	<b>Aramid Yarn</b>
Temperature range	<b>-20 °C - +70 °C</b>
Connector Material	<b>Composite</b>
Minimum bend radius (loaded)	<b>10 x cable diameter</b>
Connector Ferrule	<b>2.5 mm Zirconium ceramic</b>
Ferrule End Face	<b>APC Polish</b>
Connector Insertion Loss	<b>Max. 0.3dB</b>

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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 ± 0.7µm
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/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

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Macro-Bend Loss - 10 turns, 15mm radius, 1550nm	≤ <b>0.1dB</b>
Macro-Bend Loss - 1 turn, 10mm radius, 1550nm	≤ <b>0.1dB</b>
Macro-Bend Loss - 1 turn, 10mm radius, 1625nm	≤ <b>0.2dB</b>
Macro-Bend Loss - 1 turn, 7.5mm radius, 1550nm	≤ <b>0.5dB</b>
Macro-Bend Loss - 1 turn, 7.5mm radius, 1625nm	≤ <b>1.0dB</b>
Coating Strip Force (typical)	<b>1.5N</b>
Coating Strip Force (peak)	<b>1.3 - 8.9N</b>

## 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

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	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 61754-20:2012	Fibre optic connector interfaces - Part 20: Type LC connector family
ISO/IEC 11801-1:2017	Information technology - Generic cabling for customer premises: Part 1 General Requirements
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

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## 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).

UK SI 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.

## Part Code Table

Part Code	Description
201-211	Excel Enbeam OS2 Fibre Optic Patch Lead G.657.A1 SC/APC-SC/APC SM 9/125 SX Yellow 1 m
201-212	Excel Enbeam OS2 Fibre Optic Patch Lead G.657.A1 SC/APC-SC/APC SM 9/125 SX Yellow 2 m
201-213	Excel Enbeam OS2 Fibre Optic Patch Lead G.657.A1 SC/APC-SC/APC SM 9/125 SX Yellow 3 m
201-214	Excel Enbeam OS2 Fibre Optic Patch Lead G.657.A1 SC/APC-SC/APC SM 9/125 SX Yellow 5 m
201-216	Excel Enbeam OS2 Fibre Optic Patch Lead G.657.A1 SC/APC-SC/APC SM 9/125 SX Yellow 10 m