

# Excel Enbeam Fibre Pigtail OS2 9/125 LC/APC Tight Buffered 12-Colour Pack (TIA 598) 2 m

excel  
without compromise.

Part Code: 200-457

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



## Main Features

- / Colour-coded fibres to TIA standard
- / Easy to manage packaging
- / Test Certificate with each cable
- / Tight buffered construction
- / Bend insensitive construction
- / RoHS Compliant

## Product Overview

Excel singlemode Tight Buffered fibre optic pigtailed are manufactured from the highest quality 900 micron optical fibre, terminated with ceramic ferrule connectors of various types.

Cable preparation, termination and testing is carried out to strictly managed procedures in an Excel approved, ISO9001 registered manufacturing facility. Each pigtail has a strain relief boot to prolong and maintain performance levels of the assembly. A short distance from the connector a label containing a unique batch number is fixed to cable for quality and traceability purposes.

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## Product Specifications

Feature	Values
Fibre type	Single mode
Category	OS2
Length	2 m
Type of connector	LC
APC-type	yes
Colour	Multi Coloured (TIA 598)
Strain relief boot	Push-on

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### Product schematics



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ST



- ① ST Dust cover
- ② ST connector
- ③ ST Strain relief boot
- ④ Easy Strip LSOH cable

SC



- ① SC Dust cover
- ② SC connector
- ③ SC Strain relief boot
- ④ Easy Strip LSOH cable

LC



- ① LC Dust cover
- ② LC connector
- ③ LC Strain relief boot
- ④ Easy Strip LSOH cable

FC



- ① FC Dust cover
- ② FC connector
- ③ FC Strain relief boot
- ④ Easy Strip LSOH cable

## Cable Profile



## Packaging



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## Cable specifications

Features	Values	ST Assemblies	SC Assemblies	LC Assemblies
Construction	<b>Semi-Tight Buffered</b>			
No. of Fibres	<b>1</b>			
Diameter	<b>900 micron</b>			
Temperature range	<b>-20C to +70C</b>			
Connector Material		<b>Nickel plated Brass</b>	<b>Composite</b>	<b>Composite</b>
Minimum bend radius	<b>10 x cable diameter</b>			
Connector Ferrule		<b>2.5 mm Zirconium ceramic</b>	<b>2.5 mm Zirconium ceramic</b>	<b>1.25 mm Zirconium ceramic</b>
Connector Insertion Loss	<b>Max. 0.3 dB</b>			
Connector Return Loss (Multimode)	<b>Max. -30 dB</b>			
Ferrule End Face (Singlemode UPC)	<b>Max. -50 dB</b>			
Ferrule End Face (Singlemode APC)	<b>Max. -60 dB</b>			

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## Fibre specifications

Features	Values
Mode Field diameter at 1310 nm	8.4-9.2 $\mu\text{m}$
Mode Field diameter at 1550 nm	9.3-10.3 $\mu\text{m}$
Cladding diameter	125.0 $\pm$ 0.7 $\mu\text{m}$
Cladding Non-circularity	$\leq$ 0.7 %
Primary Coating diameter	235-245 $\mu\text{m}$
Coating-Cladding Concentricity Error	$\leq$ 12 $\mu\text{m}$
Coating Non-circularity	$\leq$ 6.0 %
Core-Cladding Concentricity Error	$\leq$ 0.5 $\mu\text{m}$
Max. attenuation at 1310 nm	$\leq$ 0.35 dB/km
Max. attenuation at 1383 nm	$\leq$ 0.35 dB/km
Max. attenuation at 1460 nm	$\leq$ 0.25 dB/km
Max. attenuation at 1490 nm	$\leq$ 0.23 dB/km
Max attenuation at 1550 nm	$\leq$ 0.21 dB/km
Max attenuation at 1625 nm	$\leq$ 0.23 dB/km
PMD (typical value)	0.04 ps/km
Cut-off wavelength	1260 nm
Zero dispersion wavelength	1300-1324 nm
Zero dispersion slope	$\leq$ 0.092 ps/nm <sup>2</sup> .km
Refractive Index at 1310 nm	1.466
Refractive Index at 1550 nm	1.467
Macro-Bend Loss - 10 turns, 15 mm radius, 1625 nm	$\leq$ 0.0 3dB

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Macro-Bend Loss - 10 turns, 15 mm radius, 1550 nm  $\leq 0.1$  dB

Macro-Bend Loss - 1 turn, 10 mm radius, 1550 nm  $\leq 0.1$  dB

Macro-Bend Loss - 1 turn, 10 mm radius, 1625 nm  $\leq 0.2$  dB

Macro-Bend Loss - 1 turn, 7.5 mm radius, 1550 nm  $\leq 0.5$  dB

Macro-Bend Loss - 1 turn, 7.5 mm radius, 1625 nm  $\leq 1.0$  dB

## 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

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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
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.
ANSI/TIA 568-3.D	Optical Fiber Cabling and Components Standard
ISO/IEC 11801-1:2017	Information technology - Generic cabling for customer premises: Part 1 General Requirements
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

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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
200-454	Excel Enbeam Fibre Pigtail OS2 9/125 SC/UPC Tight Buffered 12-Colour Pack (TIA 598) 2 m
200-455	Excel Enbeam Fibre Pigtail OS2 9/125 LC/UPC Tight Buffered 12-Colour Pack (TIA 598) 2 m
200-456	Excel Enbeam Fibre Pigtail OS2 9/125 SC/APC Tight Buffered 12-Colour Pack (TIA 598) 2 m
200-457	Excel Enbeam Fibre Pigtail OS2 9/125 LC/APC Tight Buffered 12-Colour Pack (TIA 598) 2 m
200-548	Excel Enbeam Fibre Pigtail OS2 9/125 LC/UPC 12-Colour Pack (TIA 598) 1 m
200-554	Excel Enbeam Fibre Pigtail OS2 9/125 SC/UPC Yellow 2 m
200-561	Excel Enbeam Fibre Pigtail OS2 9/125 LC/UPC Yellow 2 m
200-565	Excel Enbeam Fibre Pigtail OS2 9/125 LC/UPC 12-Colour Pack (TIA 598) 0.5 m
200-576	Excel Enbeam Fibre Pigtail OS2 9/125 ST/UPC Yellow 2 m
200-602	Excel Enbeam Fibre Pigtail OS2 9/125 LC/UPC 12-Colour Pack (TIA 598) 2m
200-723-12	Excel Enbeam Fibre Pigtail OS2 9/125 SC/UPC Semi Loose Buffer Yellow 1 m (12-Pack)