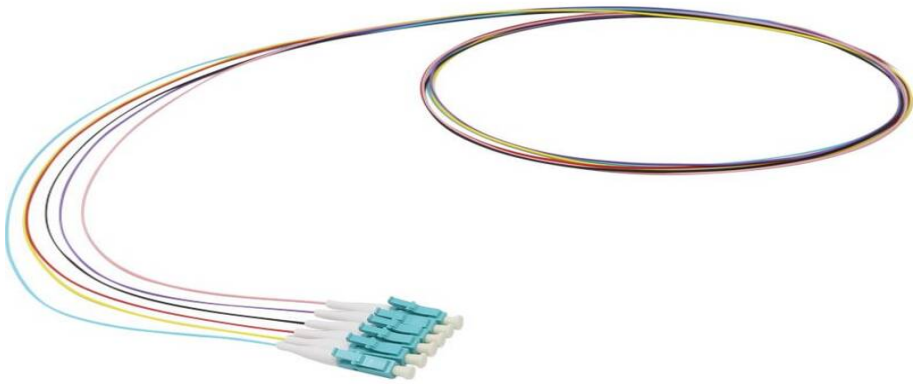
Excel Enbeam Fibre Pigtail OM3 50/125 LC/UPC 12-Colour Pack (TIA 598) 1 m

Part Code: 200-546

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

CIBSE TM65 Embodied Carbon: 0.133 kg CO2e



Main Features

- Semi Loose Buffered
- Each cable is individually packaged and labelled
- RoHS Compliant
- Choice of connectors & lengths
- Test Certificate with each cable
- Bend insensitive construction

Product Overview

Excel multimode fibre optic pigtails are manufactured from the highest quality 900 micron optical fibre, terminated with ceramic ferrule connectors of various types. To assist in fast cable preparation and splicing semi tight buffered, easy strip, cable is used as standard. 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	**Multi mode 50/125**
Category	**OM3**
Length	**1 m**
Type of connector	**LC**
APC-type	**no**
Colour	**Multi Coloured (TIA 598)**
Strain relief boot	**Push-on**

Fibre specifications

Features	OM1	OM2	OM3	OM4	OM5
Core diameter	**62.5 ± 2.5µm**	**50 ± 2.5µm**	**50 ± 2.5µm**	**50 ± 2.5µm**	**50 ± 2.5µm**
Core Non-circularity	**≤5%**	**≤5%**	**≤5%**	**≤5%**	**≤5%**
Core-Cladding Concentricity Error	**≤1.5µm**	**≤1.5µm**	**≤1.0µm**	**≤1.0µm**	**≤1.0µm**
Cladding diameter	**125 ± 1.0µm**	**125 ± 1.0µm**	**125 ± 1.0µm**	**125 ± 1.0µm**	**125 ± 0.8µm**
Cladding Non-circularity	**≤1.0%**	**≤1.0%**	**≤1.0%**	**≤1.0%**	**≤0.6%**
Primary Coating diameter	**245 ± 7µm**	**245 ± 7µm**	**245 ± 7µm**	**245 ± 7µm**	**245 ± 7µm**
Coating-	**≤10.0µm**	**≤10.0µm**	**≤10.0µm**	**≤10.0µm**	**≤10.0µm**

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Cladding Concentricity Error					
Coating Non-circularity	**≤6.0%**	**≤6.0%**	**≤6.0%**	**≤6.0%**	**≤6.0%**
Secondary coating diameter	**900 µm nominal**	**900 µm nominal**	**900 µm nominal**	**900 µm nominal**	**900 µm nominal**
Max. attenuation at 850nm	**2.7dB/km**	**2.3dB/km**	**2.4dB/km**	**2.4dB/km**	**2.4dB/km**
Max. attenuation at 953nm					**1.7dB/km**
Max attenuation at 1300nm	**0.6dB/km**	**0.6dB/km**	**0.6dB/km**	**0.6dB/km**	**0.6dB/km**
Refractive Index at 850nm	**1.496**	**1.482**	**1.482**	**1.482**	**1.482**
Refractive Index at 1300nm	**1.491**	**1.477**	**1.477**	**1.477**	**1.477**
Bandwidth at 850nm	**200 MHz.km**	**500 MHz.km**	**≥1500 MHz.km**	**≥3500 MHz.km**	**≥3500 MHz.km**
Bandwidth at 953nm					**≥1850 MHz.km**
Bandwidth at 1300nm	**500 MHz.km**	**500 MHz.km**	**≥500 MHz.km**	**≥500 MHz.km**	**≥500 MHz.km**
Effective Modal Bandwidth at 850nm			**≥2000 MHz/km**	**≥4700 MHz/km**	**≥4700 MHz/km**
Effective Modal Bandwidth at 953nm					**≥2470 MHz/km**

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Numerical Aperture	**0.275 ±0.015**	**0.200 ±0.015**	**0.200 ±0.015**	**0.200 ±0.015**	**0.200 ± 0.015**
Zero Dispersion Wavelength	**1320-1365nm**	**1295-1340nm**	**1295-1340nm**	**1295-1340nm**	**1295-1340nm**
Macrobending Loss - 100 turns, 37.5mm Radius, 850nm	**≤0.50dB**	**≤0.10dB**	**≤0.50dB**	**≤0.50dB**	**≤0.10dB**
Macrobending Loss - 100 turns, 37.5mm Radius, 1300nm	**≤0.50dB**	**≤0.30dB**	**≤0.50dB**	**≤0.50dB**	**≤0.30dB**
Macrobending Loss - 2 turns, 7.5mm Radius, 850nm		**≤0.2dB**	**≤1.0dB**	**≤1.0dB**	**≤0.2dB**
Macrobending Loss - 2 turns, 7.5mm Radius, 1300nm		**≤0.5dB**	**≤1.0dB**	**≤1.0dB**	**≤0.5dB**

Cable specifications

Features	Values	ST Assemblies	SC Assemblies	LC Assemblies
Construction	**Semi-Tight Buffered**			
No. of Fibres	**1**			

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Diameter	**900 micron**			
Temperature range	**-20C to +70C**			
Connector Material		**Nickel plated Brass**	**Composite**	**Composite**
Minimum bend radius	**10 x cable diameter**			
Connector Ferrule		**2.5 mm Zirconium ceramic**	**2.5 mm Zirconium ceramic**	**1.25 mm Zirconium ceramic**
Connector Insertion Loss	**Max. 0.3 dB**			
Connector Return Loss (Multimode)	**Max. -30 dB**			
Ferrule End Face (Singlemode UPC)	**Max. -50 dB**			
Ferrule End Face (Singlemode APC)	**Max. -60 dB**			

Standards

Applicable standard	Detail
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

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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.651.1:2018	Characteristics of a 50/125 µm 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
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)

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	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).
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
200-458	**Excel Enbeam Fibre Pigtail OM3 50/125 LC/UPC Tight Buffered 12-Colour Pack (TIA 598) 2 m**
200-546	**Excel Enbeam Fibre Pigtail OM3 50/125 LC/UPC 12-Colour Pack (TIA 598) 1 m**
200-547	**Excel Enbeam Fibre Pigtail OM4 50/125 LC/UPC 12-Colour Pack (TIA 598) 1 m**
200-578	**Excel Enbeam Fibre Pigtail OM3 50/125 LC/UPC 12-Colour Pack (TIA 598) 0.5 m**
200-603	**Excel Enbeam Fibre Pigtail OM3 50/125 LC/UPC 12-Colour Pack (TIA 598) 2 m**
200-604	**Excel Enbeam Fibre Pigtail OM4 50/125 LC/UPC 12-Colour Pack (TIA 598) 2 m**
204-322	**Excel Enbeam Fibre Pigtail OM4 50/125 LC/UPC 12-Colour Pack (TIA 598) 0.5 m**

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