



System Connections (Cambridge)

a division of Cambridge Electronic Industries Ltd



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System Connections (Cambridge)


Cable & Sub-assemblies

System Connections has over 16 years experience of providing interconnection assemblies and sub-systems. Our knowledge of the industry, our efficient production methods and our resourcing strength means that we are able to meet your specific needs promptly and competitively to the highest possible standards.

- Cable Assemblies

All built to the rigorous standards of ISO9001, our cable assemblies meet the needs of a wide number of industries ranging from telecoms, data transmission and broadcast to industrial controls, test & measurement and transport. Flexible production techniques enable rapid turnaround for both prototype and production quantities. Both standard and custom assemblies benefit from the use of specialist computer software optimising the use of materials and production time.


	Round Cable	Flat Cable	Solder Termination	Crimp Termination	Insulation Displacement	Wire Wrap	Screened	Unscreened	Multi-way
D Subminiature	*	*	*	*	*	*	*	*	*
DIN 41612	*	*	*	*	*	*	*	*	*
Coaxial - RF	*		*	*			*	*	*
Telco	*	*	*		*		*	*	*
Flat Ribbon		*		*		*	*	*	*
Moulded	*	*	*	*	*	*	*	*	*
Looms	*	*	*	*	*	*	*	*	*
Patch - Copper	*	*		*		*	*	*	*
Patch - Fibre									*



- Enclosures & sub-assemblies

A wide variety of sub-assemblies and enclosures can be manufactured and assembled to customer order. Our experienced engineers work in close partnership, from original concept and specification through to prototyping and initial production runs. Use of modern tools such as CAD Modelling Systems helps provide a rapid turnaround service, often enabling us to present dynamic 3-Dimensional visualisations in a matter of days. Such techniques assist feasibility studies, speed up the approval stage and greatly shorten the project development process.

	19" Rack Mounting	Etsi rack mounting	Cabinet fitting	DIN Rail Mounting	Wall mounting	Floor mounting	Modular	Stand alone	Desk top
Patch Panels - RJ45, BNC, F Type, D Sub, XLR.	*	*	*	*					
Fibre optic panels & trays	*	*	*						
Punchdown or Telco (RJ21) connection	*	*	*						
Power & Data Management	*	*	*	*	*	*	*	*	*
Cable Management Systems	*	*	*	*	*	*	*	*	*
Networking Enclosures	*	*	*	*	*				



- Customer Specials



BT43 Loom



Specialised Conduits & Interfaces



XLR Panel

The pictures above illustrate some of our special product development capabilities. They show a small selection of the projects that we have undertaken in recent times.

We believe that we can help you obtain project cost savings, help you to get your product to market ahead of your competitors or provide a custom solution where no standard offering is available.

To find out how, please contact our engineering department to discuss your project. No matter how large or small the quantity, we will be able to help.

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Fibre Cable, Connectors and Enclosures

The advantages provided by fibre optic technology compared with traditional copper methods make it ideal for applications that require the transmission of large quantities of data over long distances. The key advantages include:-

High Bandwidth. The data handling ability of fibre can be thousands of times greater than copper.

Low Signal Loss. Transmission distances are many kilometres with no repeaters.

EMI Immunity. No electricity is involved so no Electro Magnetic Interference or radiation can occur; this has the added security benefit that data cannot be tapped easily.

Ease of Installation. Being light and flexible, the installation costs of fibre are significantly lower.

System Connections, with over 16 years experience of providing connection assemblies and enclosures to the communications industry, now provides a complete range of fibre solutions at very competitive pricing. The range includes: -

Multi-mode and Single-mode products.

Single-mode fibre has a narrower core allowing the passage of only single rays. This gives greater bandwidth and transmission distances (many kilometres) making this type of fibre ideal for telecom carriers backbone applications.

Multi-mode on the other hand, is better suited to local data and voice networking.

Simplex/Duplex Products

Simplex (single direction) fibre is ideal in applications such as data retrieval.

Duplex fibre is required where simultaneous two way communication is required.

For help with selecting the most suitable fibre products for your application contact our experienced team of engineers.

- Connectors

ST connectors are bayonet locking and are most commonly used in multimode, LAN applications. The **SC** is a snap-in connector that is widely used in singlemode systems. Popular as a single-mode connector, with threaded locking, the **FC** is ideal for harsh environments. A small form connector, the **LC** is favoured for both multi-mode and single-mode operation.

Connector Style	Connector	Hotmail Connector	Simplex Connector	Adapter	Simplex Adapter	Duplex Adapter	D' Hole Adapter	Light Crimp
Multi-mode								
ST (bayonet locking)	o	o	o					
SC (push pull locking)		o	o		o	o		o
FC (threaded locking)	o						o	
LC (push pull locking)		o	o		o	o		o
Single-mode								
ST (bayonet locking)	o	o		o				
SC (push pull locking)		o	o		o	o		
FC (threaded locking)							o	
LC (push pull locking)		o	o		o	o		

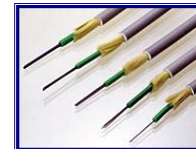


- Fibre Cable

Although **62.5** micron fibre has been the standard for a number of years, the greater bandwidth of **50** micron fibre makes it more acceptable for high speed transmission rates over longer distances. **Loose tube** cable is ideal for harsh, external applications since the each core is individually protected usually within a waterproof Gel. **Tight-buffered** cable have two plastic/acrylate coatings for protection and are better for indoor, intermediate length networking.

Cable Type	62.5/125	50/125	9/125	OM3
int/ext loose tube (LSZH)	*	*	*	*
int/ext tight buffered (LSZH)	*	*	*	*
internal/external CST (steel tape armoured)	*	*	*	*

All available in 4, 8, 12, 16 and 24 core



-Fibre Assemblies

100% tested, this comprehensive range of fibre pigtails, simplex & duplex patchcords is available using 9/125; 50/125; 62.5/125 or OM3 fibre. Connector styles include ST; SC; FC; LC; MTRJ; ESCON; FDDI; SMA & MU. Key benefits for buying pre-assembled fibre are: - **Fast turnaround,** **Guaranteed performance** **Competitive pricing**

Connector Styles	62.5/125 Duplex	62.5/125 Simplex	9/125 Duplex	9/125 Simplex	OM3 Duplex
ST - ST	*	*	*	*	*
ST - SC	*	*	*	*	*
SC - SC	*	*	*	*	*
LC - LC	*	*	*	*	*
LC - SC	*	*	*	*	*
LC - ST	*	*	*	*	*
ST - MTRJ	*	*	*	*	*
MTRJ - MTRJ	*	*	*	*	*
FC - FC	*	*	*	*	*
SC - FC	*	*	*	*	*
ST - SC	*	*	*	*	*
SC-MTRJ	*	*	*	*	*



Fibre Patch Panels and Break Out Boxes

Available for connector styles, ST; SC Simplex & Duplex; SC APC; LC Duplex; MTRJ, FC & FCAPL, these Patch Panels and Break Out Boxes provide the focal points where connections can be changed simply and efficiently enabling networks to be modified and upgraded as and when required. Each unit is suitable for multi-mode or single-mode use and comes complete with adaptors tailored for the relevant mating connector pairs.

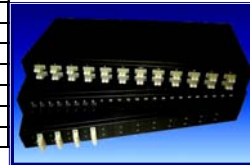
The **19" panels** range from 4 way to 48 way come in 1u heights and fit standard distribution cabinets to allow easy interconnection to other equipments.

The **wall mounted breakout boxes** offer single or double lockable doors and provide facilities for 4 to 48 ways.

- Fibre 19" 1u Patch Panels

These patch panels are manufactured in the UK from 18 swg mild steel. The finish is powder coating in Graphite Black with White screen printing for ease of identification. Installation is simplified using adjustable 3 way mounting brackets and an easy clip lid allows fast access.

Connector Styles	Single-mode	Multi-mode	4 way	8 way	12 way	16 way	24 way	48 way
ST	*	*	*	*	*	*	*	*
SC Duplex	*	*	*	*	*	*	*	*
SC Simplex	*	*	*	*	*	*	*	*
SC APC	*	*	*	*	*	*	*	*
LC	*	*	*	*	*	*	*	*
MTRJ	*	*	*	*	*	*	*	*
FC	*	*	*	*	*	*	*	*



- Wall Mount Break Out Boxes

These break out boxes are manufactured in UK from 18 swg mild steel. Powder coated finishes are available in White or Grey. 20mm cable entry holes and a variety of wall fixing holes provide flexibility of installation. The range also offers high density single or double door lockable versions.

Connector Styles	Single-mode	Multi-mode	4 way	8 way	12 way	16 way	24 way	48 way
ST	*	*	*	*	*	*	*	*
SC Simplex	*	*	*	*	*	*	*	*
SC Duplex	*	*	*	*	*	*	*	*
LC	*	*	*	*	*	*	*	*
MTRJ	*	*	*	*	*	*	*	*
FC	*	*	*	*	*	*	*	*



Available in the following styles: -

- = Externally Mounted adapters and Single Door Lockable Box
- * = Double Door Lockable Box

- Accessories

Attenuators



Couplers



Adapters



Mode Conditioning Patch Cords



Pig tails



Media Convertors



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