

YOUR PARTNER FOR ALL YOUR FIBRE **NETWORKING REQUIREMENTS** 

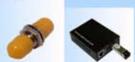
Tel: 0845 2000 718

Fax: 0845 2000 719











### Welcome to Turnkey's Product and Service Guide:

#### Company Info:

Turnkey Fibre Solutions was established to provide a key partner for installers and other distributors. Turnkey prides itself on being more than just a supplier we like to offer our customers as much support as they need, be that technical advice, helping customers promote our products or helping on pricing for specific projects.

We are a specialist fibre optic distributor. With years of experience in the fibre optic marketplace we can offer our customers advice on products and a flexible service to accommodate any requirement.

We have established ourselves as an excellent partner for many companies. Relying on our friendly, efficient and knowledgeable staff we have built key relationships with some of the industries leading fibre companies.

### **Products Supplied:**

- FIBRE PATCHCORDS AND PIGTAILS
- FIBRE OPTIC PATCH PANELS
- FIBRE ADAPTERS
- FIBRE CONNECTORS
- FIBRE ATTENUATORS
- PRE-TERMINATED FIBRE CABLES
- FIBRE CABLE
- CATSE & CAT6 PATCH LEADS
- WIDE RANGE OF COPPER PRODUCTS
- FIBRE WALL MOUNT BOXES

- FIBRE SPLICE BOXES
- CABINETS
- MEDIA CONVERTERS
- CONSUMABLES
- LAUNCH BOXES
- MODE CONDITIONING PATCHCORDS
- FIBRE SPLITTERS
- FIBRE TOOLS AND TEST EQUIPMENT
- FIBRE CONSUMABLES
- FIBRE LOOPBACKS

This product guide has been designed to give you all the information relating to the products that we supply, stock and manufacture. If you cannot find the information that you require or you need more specific details, then please contact us on the below number and we will help with your enquiry.

### Services and Technical Support:

At Turnkey we take pride in our product quality but equally in the service that we supply our customers. We offer assistance in identifying the right products for the job or creating a bespoke product to suit the customers requirements, this could be from designing a fibre lead for harsh environment use, to designing a fibre enclosure for a non standard application. We will do as much as we can to assist our customers with their requirements and are always on had to offer technical support relating to all our products.

# **Turnkey Fibre Solutions Ltd** Tel: 0845 2000 718 -- CC 60'20 G

Fax: 0845 2000 719 www.turnkeyfibre.com











Welcome to Turnkey's Product and Service Guide:

#### **Account Application Process:**

We offer a Credit Account facility to customers that wish to open one, these credit accounts are subject to company credit reference checks. For more information please contact us and we will send the relevant forms to you.

### Ordering and Paying:

We take orders over the phone, via fax or more commonly by e-mail. If a Credit Account is held then the payment is as per the terms of that account. For customers who do not hold a credit account, we accept most forms of Debit or Credit card, we accept forms of direct bank deposits such as BACS and we can accept cheques but the funds must clear before goods are manufactured or dispatched.











### Delivery Options:

Due to the large stock quantities we hold, in most cases we can offer a next day delivery service from pre 9.30 to next day guaranteed before 3pm. We dispatch up until 5.00pm

Standard Delivery Costs: Standard Next Day before 3.00pm £10.00

> £15.00 Next Day Pre 12.00 Noon Next Day Pre 9.30am £20.00

Some shipping charges may differ from the above rates dependant on the consignment weight, but you will be informed either on quotation or before invoicing if this is the case.

We do offer a same day service if required but it is dependant on location and the time of request, please contact us for a quotation.

### Location Map:





**Turnkey Fibre Solutions Ltd** Unit 4C Kenneth Way Wilstead Industrial Park Bedfordshire **MK45 3PD** 

Opening Hours: 9.00am - 5.30pm



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### Your partner for all your cabling and networking requirements

### Fibre Optic Patchcords

Patchcords are used for patching between a fibre optic cabling system and fibre optic transmission equipment such as media convertors, switches, video transmitters etc.

Also providing moveable links between sections of permanently installed cable at patch panels or distribution frames.

Products can be replaced by the end user without any specialist equipment.



Patchcords are manufactured using tight jacket cables with aramid yarn strength members and a LSZH jacket.

Patchcords can be supplied in the below options:

Simplex meaning one fibre

Duplex meaning two fibres.

Flat Twin meaning two fibres with a rugged outer jacket offering more protection.

Duplex patchcords come in either 2.8mm zip cable or minizip which is 1.8mm. All our patchcords with either an LC or an MTRJ connector come on minizip as standard.

Patchcords can be terminated with many combinations of connection to suit your application. We stock a large selection of patchcords with various types of connectors such as ST, SC, LC, MTRJ, FC, SCAPC and FCAPC

Our standard patchcord colours are GREY for 62.5/125 (OM1) Orange for 50/125 (OM2) and OM3 and YELLOW for 9/125 (OS1)

We can supply patchcords in many different colours such as RED, BLUE, GREEN, AQUA, PURPLE and more. If you require a specific colour please contact us and we will confirm if we can offer it.

We have in house termination facilities so that we can offer a quick turn around on special items that are required urgently. Our average lead time for in house termination is 2-3 days depending on quantity.

We offer bespoke fibre products, so if you require a fibre lead for a specific application we can help design the product around your requirements.

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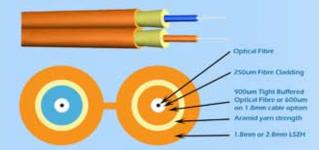




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### **Fibre Optic Patchcords**

#### **DUPLEX FIBRE PATCHCORD**

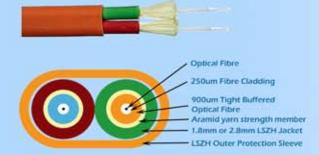


The duplex fibre patchcord is the most common of fibre links used. We stock large quantities of duplex leads in all modes with all the most common connectors in standard and non standard lengths.

All our duplex leads are supplied in their own bag with individual test results shown on a label attached to the bag.

If we do not stock the lead that you require we have the facility to manufacture patchcords in house offering a quick turn around.

#### FLAT TWIN DUPLEX FIBRE PATCHCORD



The Flat Twin Duplex patchcord is a more rugged and robust form of the standard duplex patchcord. This cable is a standard duplex cable with an LSZH outer jacket that offers more protection.

These leads are normally used where the patchcord is being installed in ducting or on long lengths of cable trays and that extra bit of protection is required for installation purposes.

These leads are special order leads and are made to order as per the requirements of the project.

#### SIMPLEX FIBRE PATCHCORD



The simplex fibre patchcord is a single fibre channel that can be used as a transmit or receive lead, a simplex lead is not as common as a duplex lead, due to this we do not stock these leads but a duplex cable can be stripped down the middle to produce a simplex lead if needed.

These leads are special order leads and are made to order as per the requirements of the project.

#### **DUPLEX FIBRE PATCHCORD IN CONDUIT**



The Duplex patchcord in Conduit is similar to the Flat Twin lead but it is the Conduit that offers the protection to the standard duplex cable that is installed inside it and then terminated afterwards.

With this option you can have several duplex or simplex leads installed in one piece of conduit but the size of the conduit will vary on the amount of leads installed in

These leads are special order leads and are made to order as per the requirements of the project.



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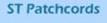




### **TURNKEY FIBRE SOLUTIONS**

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### STANDARD FIBRE PATCHCORDS SUPPLIED





SC Patchcords



MTRJ Patchcords



LC Patchcords



**FC Patchcords** 



LCAPC Patchcords



**SCAPC Patchcords** 



E2000APC Patchcords



E2000 Patchcords



FCAPC Patchcords



We stock a large variety of patchcords in all modes however if we do not have the product you require or you need a specialist product made to your requirements we can manufacture it using any of the above connectors in all modes.

On top of the above connectors we can also manufacture using the following connectors:

STAPC, FDDI, VF45, DIN, TAP8, ESCON, SMA, MU and also a range of plastic fibre connectors.

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### NON STANDARD FIBRE PATCHCORDS SUPPLIED

Apart from the standard patchcord such as Duplex, Simplex and Flat Twin we offer specialist leads as explained below, these leads are a special order product and not stock items:

#### **Angled Booted Patchcords:**

We can offer standard patchcords with angled boots on several of the connector types the most common being the LC Angled Booted Patchcord.

#### Labelled Patchcords:

All our standard stock leads do not have labels on but this is a service that we offer, we can supply leads with a label at each end of the patchcord that can have any sequence of numbers or letters that are required.

#### Optical Bend Limiting Tubing Patchcords:

We offer OBLT Patchcords for use in confined spaces and areas where the fibre cable needs to have extra protection and also be rigid and able to bend in tight spaces.

#### **Tactical Patchcords:**

Tactical patchcords are made using a fibre cable that has increased crush resistant properties while still being very flexible, they can also be exposed to harsh environments, such as military training grounds or other environments where vehicles may need to continually pass over the fibre cable.

#### **Armoured Patchcords:**

Armoured patchcords are made using a fibre cable that has a stainless steel armouring inside that protects the fibre more than a normal lead. These leads can be used in a variety of harsh environments without any further protection saving space and cost in many areas.

#### **Bend Insensitive Patchcords:**

The bend-insensitive cables have less attenuation compared with standard fibre cables and this will make the installation and maintenance of the fibre optic cables more efficient. Due to this these cables can be installed in areas where a normal cable may not perform efficiently, for example in FTTH networks where tight corners in a home cannot be avoided.

#### 900um Patchcords:

These patchcords are available in Simplex and Duplex but only in short lengths. Many different colours are available. For the Duplex option the 900um simplex fibres are held together using a label.





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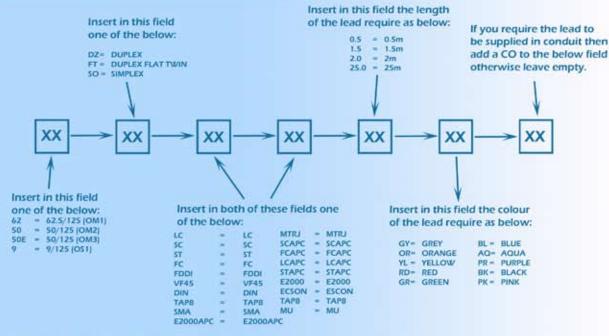




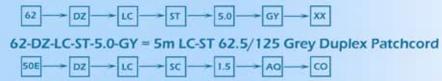


### Fibre Optic Patchcords

#### **Patchcord Part Number Information**



#### Example of Patchcord Part Number

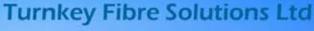


50E-DZ-LC-SC-1.5-AQ = 1.5m LC-SC OM3 Aqua Duplex Patchcord in Conduit

#### **Patchcord Technical Information**

FIBRE TYPE	Multimode	Singlemode	Singlemode APC
Maximum Insertion Loss	0.5dB	0.3dB	0.3dB
Typical Insertion Loss	0.2dB	0.2db	0.1dB
Return Loss		≥ 50dB	≥ 60dB
Operating Temperatures		-20°C ~ +70°C	
Storage Temperatures		-40°C ~ +80°C	





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### OM1 (62.5/125) GREY Duplex Patchcord Stock









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### OM2 (50/125) ORANGE Duplex Patchcord Stock







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### OM3 (50/125) ORANGE Duplex Patchcord Stock





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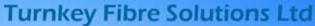


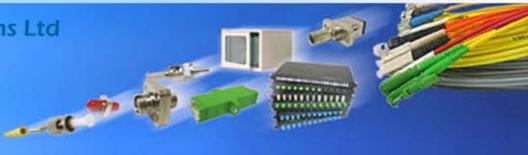
### OS1 (9/125) YELLLOW Duplex Patchcord Stock



















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### OS1 (9/125) YELLOW Duplex Patchcord Stock



LENGTH in	MTRJ-MTRJ	ST-MTRJ	SC-MTRJ	LC-MTRJ	
METRES	DUPLEX	DUPLEX	DUPLEX	DUPLEX	
0.5					
1.0		/	/	/	
2.0		/	/	/	
3.0	<b>/</b>		V	/	
5.0	<b>/</b>		<b>/</b>	/	
10.0	<b>/</b>	/	<b>/</b>	/	
15.0					
20.0					
25.0					
30.0					
Additional Lengths					
Stocked					



	11 17	33 45	11 11		
LENGTH in	SCAPC-SCAPC	SCAPC-SC	EZ000APC-EZ000APC	3	Į.
METRES	DUPLEX	DUPLEX	DUPLEX		
0.5					
1.0	/	_	<b>V</b>		
2.0	/				
3.0	/				
5.0					
10.0					
15.0					
20.0					
25.0					
30.0					
Additional Lengths					Į.
Stocked					





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### Fibre Optic Pigtails

Pigtails consist of a length of 900um buffered fibre terminated at one end with a connector. Fibre optic backbone cabling is quickly terminated with connectors or by splicing on pigtails. The spliced joint is normally contained within a patch panel, with the connector interface being presented at the front of the panel via fibre optic adapters.

Pigtails can be terminated with any style of connector to suit your application.

Each pigtail has a strain relief boot which helps to prolong the performance.

Pigtails are available in 50/125, 62.5/125, OM3 and 9/125 Singlemode. All standard 9/125 Singlemode pigtails are UPC (Ultra Polished Connector)

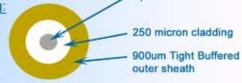


#### Terminations Available:

ST	E2000AP0
SC	SCAPC
LC	FCAPC
MTRJ	STAPC
FC	LCAPC
E2000	

#### Pigtail Standard Colour Coding:

62.5/125 (OM1) WHITE 50/125 (OM2) WHITE 9/125 (OS1) YELLOW 50/125 (OM3) AQUA



Optical Fibre

#### Features:

#### **Pigtail Technical Information**

Tight Buffered ROSH Compliant Choice of length available Broad range of connectivity options Each pigtail is individually bagged with a test certificate

FIBRE TYPE	Multimode	Singlemode UPC	Singlemode APC
Maximum Insertion Loss	0.5dB	0.3dB	0.3dB
Typical Insertion Loss	0.2dB	0.Zdb	0.1dB
Return Loss		≥ 50dB	≥ 60dB
Operating Temperatures		-20°C = +70°C	
Storage Temperatures		-40°C - +80°C	

We stock large quantaties of pigtails in all modes and our standard length is 1m, however all pigtails can be made to suit the customers requirements such as a different colour or length.

Our pigtails are all manufactured with standard tight buffered 900um fibre cable, it is only the MTRJ pigtails that use 600um fibre.

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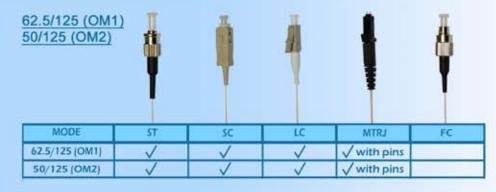


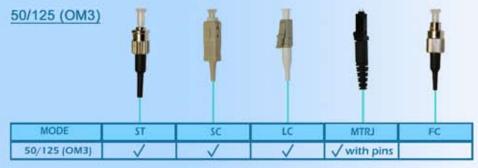


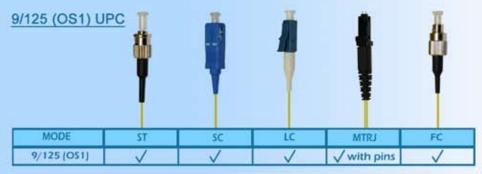


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### Fibre Optic Pigtail Standard Stock













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### **Fibre Optic Patch Panels**

- Multi Mode & Single Mode
- 4 Way (4 Fibre)
- 8 Way (8 Fibre)
- 12 Way (12 Fibre)
- 16 Way (16 Fibre)
- 24 Way (24 Fibre)
- 32 Way (32 Fibre)
- · 48 Way (48 Fibre)
- •64 Way (64 Fibre)
- 96 Way (96 Fibre)



### 19" Rack Mountable, 1U High & 2U High

We offer several different types of 19" rack mountable fibre patch panels, each loaded to the customers requirements.

We offer the standard options in both modes, such as ST, SC Simplex, SC Duplex, LC Duplex, MTRJ and FC. We also offer the non standard such as E2000, E2000APC, LCAPC, SCAPC and FCAPC.

As all our patchpanels are built in house we offer a bespoke panel design service from something as simple as building a Multimode/Singlemode Hybrid Panel to designing a panel that meets the specific needs of a project.

We also offer a sliding draw patch panel in similar options to the above but only in the 1U panel.

The panels are manufactured from durable 18 gauge 1.2mm mild steel and powder coated in black and each comes with a fibre management kit including fibre clips and cable glands. Splice bridges and cage nuts are available on request.

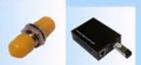
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### **Technical Specifications**

#### Construction

Manufactured from 18 gauge 1.2mm mild steel and powder coated in epoxy polyester - RAL 5004 - black - screed printed in ps 021 white - BS 509338 There are 20mm Cut outs at the back of each panel for a standard 20mm Cable Gland. The ST and SC Simplex Cut out panels have 4 holes and the SC Duplex Cut out panel has 2.

#### Installation

Maximum depth required is 205 mm.

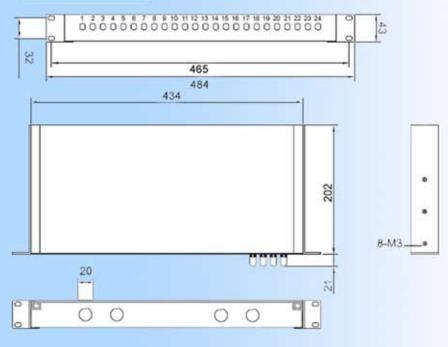
A removable lid is secured by two screws at the back.

The 19" brackets are secured with 6 (3 per side) M3 x 8 mm countersunk machine screws.

Side panels are tapped @ 3mm leaving the screws flush fitting to the side of

### **Technical Drawing**

#### ST Cut out Panel





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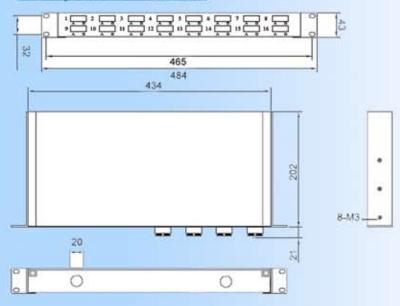




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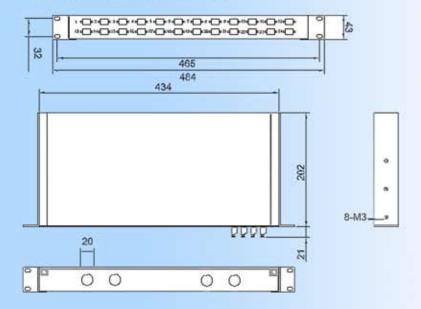
### **Technical Drawing**

#### SC Duplex cut out Panel



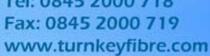
#### SC Simplex cut out Panel

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### Fibre Optic Patch Panels

1U and 2U 19" Fixed Draw Fibre Optic Patch Panels

SC Duplex Patch Panels 1U



SC Duplex Patch Panels 2U





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PL-SCDPX-MM-32-4 4 Way SC Duplex Multimode Patch Panel [2 Adapters] PL-SCDPX-MM-32-8 8 Way SC Duplex Multimode Patch Panel PL-SCDPX-MM-32-12 12 Way SC Duplex Multimode Patch Panel (6 Adapters) PL-SCDPX-MM-32-16 16 Way SC Duplex Multimode Patch Panel (8 Adapters) PL-SCDPX-MM-32-24 24 Way SC Duplex Multimode Patch Panel [12 Adapters]

[16 Adapters]

#### Part Numbers:

PL-SCDPX-MM-32-32

PL-2U-SCDPX-MM-48-32

PL-2U-SCDPX-MM-48-48

#### Description for 2U:

32 Way SC Duplex Multimode 2U Patch Panel [16 Adapters]

32 Way SC Duplex Multimode Patch Panel

48 Way SC Duplex Multimode 2U Patch Panel (24 Adapters)

The above Panels are available in Singlemode just replace the MM in the part number for SM, they can also be supplied using the below adapters please call us for details and configurations available.

SCAPC Duplex LC QUAD ST Duplex Plastic adapter ST Patch Panels 1U



ST Patch Panels 2U



#### Part Numbers: Description for 1U:

PL-ST-MM-24-4 (4 Adapters) PL-ST-MM-24-8

PL-ST-MM-24-12

PI-ST-MM-24-16

PL-ST-MM-24-24

4 Way ST Multimode Patch Panel

8 Way ST Multimode Patch Panel (8 Adapters)

12 Way ST Multimode Patch Panel [12 Adapters]

16 Way ST Multimode Patch Panel (16 Adapters)

24 Way ST Multimode Patch Panel (24 Adapters)

#### Part Numbers: Description for 2U:

PL-2U-ST-MM-48-32

PL-2U-ST-MM-48-48

32 Way ST Multimode 2U Patch Panel (32 Adapters)

48 Way ST Multimode 2U Patch Panel

(48 Adapters)

The above Panels are available in Singlemode just replace the MM in the part number for SM, they can also be supplied using the below adapters please call us for details on configurations available.

FC FCAPC

1U Patch Panels can also be offered as a sliding panel please contact us for details



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### Fibre Optic Patch Panels

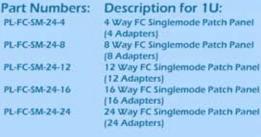
#### 1U and 2U 19" Fixed Draw Fibre Optic Patch Panels

FC Patch Panels 1U









Part Numbers: Description for 2U: PL-2U-FC-SM-48-32 32 Way FC Singlemode 2U Patch Panel

PL-2U-FC-SM-48-48 48 Way FC Singlemode 2U Patch Panel [48 Adapters]

The above Panels are available in Multimode just replace the

SM in the part number for MM, they can also be supplied using the below adapters please call us for details on configurations available

FCAPC

LC Duplex Patch Panels 1U





Part Numbers: Description for 1U: PL-LCDPX-MM-48-4 4 Way LC Duplex Multimode Patch Panel (2 Adapters) PL-LCDPX-MM-48-8 8 Way LC Duplex Multimode Patch Panel (4 Adapters) PL-LCDPX-MM-48-12 12 Way LC Duplex Multimode Patch Panel

(6 Adapters) PL-LCDPX-MM-48-16 16 Way LC Duplex Multimode Patch Panel (8 Adapters)

PL-I CDPX-MM-48-24 24 Way LC Duplex Multimode Patch Panel (12 Adapters) PL-LCDPX-MM-48-32 32 Way LC Duplex Multimode Patch Panel (16 Adapters)

PL-I CDPX-MM-48-48 48 Way LC Duplex Multimode Patch Panel (24 Adapters)

Part Numbers: PL-2U-LCDPX-MM-96-64

PL-2U-LCDPX-MM-96-96

Description for 2U:

64 Way LC Duplex Multimode 2U Patch Panel (32 Adapters) 96 Way LC Duplex Multimode 2U Patch Panel

(48 Adapters)

The above Panels are available in Singlemode just replace the MM in the part number for SM, they can also be supplied using the below adapters please call us for details and configurations available.

SC Simplex SCAPC Simplex E2000APC MTRI E2000

1U Patch Panels can also be offered as a sliding panel please contact us for details

# **Turnkey Fibre Solutions Ltd**













### Fibre Wall Mount Boxes

We supply a range of wall boxes including screw lid boxes, single door lockable and double door lockable boxes.

The door lockable wall boxes have changeable internal plates that take an LC Duplex and QUAD, E2000APC, E2000, ST, FC, MTRJ and SC Duplex and Simplex adapters.

The Screw Lid wall boxes have cut outs for external adapters and are available for ST, FC, SC Duplex and Simplex, LC Duplex and QUAD, E2000APC, E2000 and MTRJ.

All wall mount boxes can be supplied loaded, partially loaded or unloaded, unused ports are filled with blanking plugs

All boxes come with a fibre management kit.

These boxes are all manufactured from 18 Gauge 1.2mm mild steel and powder coated in epoxy polyester.

#### ST Cut Out Fibre Wall Mount

The ST Wall boxes take the standard ST Multimode and Singlemode adapters as well as the FC and FCAPC in both modes. Each Wall box is supplied with a M20 gland and a number of fibre clips depending on the fibre count. Each of the boxes below has a 20mm knockout on each side.



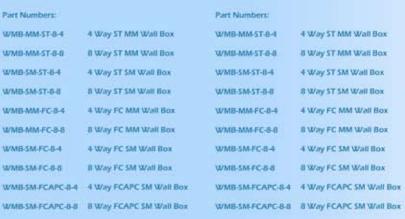
#### 16 Port ST Cut Out Wall Box

Dimensions: 160mm x 160mm x 80mm



#### 8 Port ST Cut Out Wall Box

Dimensions: 160mm x 160mm x 40mm









#### 4 Port ST Cut Out Wall Box

Dimensions: 110mm x 110mm x 40mm

Part Numbers:	
WMB-MM-ST-4-4	4 Way ST MM Wall Box
W/MB-SM-ST-4-4	4 Way ST SM Wall Box
WMB-MM-FC-4-4	4 Way FC MM Wall Box
WMB-SM-FC-4-4	4 Way FC SM Wall Box
	4 Way FCAPC SM Wall Bo



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### **Fibre Wall Mount Boxes**

#### SC Simplex & Duplex Cut Out Fibre Wall Mount Boxes

The SC Simplex Wall boxes take the standard SC Simplex Multimode and Singlemode adapters as well as the LC Duplex, MTRJ, E2000 and E2000APC in both modes.

The SC Duplex Wall box takes the standard SC/SCAPC Duplex Multimode and Singlemode adapters as well as the LC Quad and the ST Duplex plastic adapter in both modes.

Each Wall box is supplied with a M20 gland and a number of fibre clips depending on the fibre count. Each of the boxes below has a 20mm knockout on each side.



#### 12 Port SC Simplex Cut Out Wall Box

Dimensions: 160mm x 160mm x 40mm

#### Part Numbers

WMB-MM-SCSPX-12-4
WMB-MM-SCSPX-12-12
WMB-MM-SCSPX-12-12
WMB-SM-SCAPCSPX-12-4
WMB-SM-SCAPCSPX-12-12
WMB-MM-LCDPX-24-4
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-MM-LCDPX-24-12
WMB-SM-E2000APC-12-4
WMB-SM-E2000APC-12-8
WMB-SM-E2000APC-12-12-12

4 Way SC SPX MM Wall Box 8 Way SC SPX MM Wall Box 12 Way SC SPX MM Wall Box 4 Way SCAPC SPX SM Wall Box 8 Way SCAPC SPX SM Wall Box 12 Way SCAPC SPX SM Wall Box 4 Way LC DPX MM Wall Box 12 Way LC DPX MM Wall Box 12 Way LC DPX MM Wall Box 16 Way LC DPX MM Wall Box 24 Way LC DPX MM Wall Box 24 Way LC DPX MM Wall Box 4 Way E2000APC SM Wall Box 8 Way E2000APC SM Wall Box 12 Way E2000APC SM Wall Box



#### 4 Port SC Simplex Cut Out Wall Box

Dimensions: 110mm x 110mm x 40mm

#### Part Numbers

WMB-MM-SCSPX-4-4 WMB-SM-SCAPCSPX-4-4 WMB-MM-LCDPX-8-4 WMB-MM-LCDPX-8-8 WMB-MM-MTRJ-8-8 WMB-MM-2000-4-4 WMB-SM-E2000-4-4 4 Way SC SPX MM Wall Box 4 Way SCAPC SPX SM Wall Box 4 Way LC DPX MM Wall Box 8 Way LC DPX MM Wall Box 4 Way MTRJ MM Wall Box 8 Way MTRJ MM Wall Box 4 Way E2000 MM Wall Box 4 Way E2000 APC SM Wall Box

For SM options of the above please just replace the MM with and SM. The following adapters can also be used in the above wall box, E2000, MTRJ, LCAPC DPX



#### 4 Port SC Duplex Cut Out Wall Box

Dimensions: 110mm x 110mm x 40mm

#### Part Numbers

WMB-MM-SCDPX-8-4 WMB-SM-SCAPCDPX-8-8 WMB-SM-SCAPCDPX-8-8 WMB-MM-LCQUAD-16-4 WMB-MM-LCQUAD-16-12 WMB-MM-LCQUAD-16-16-12 WMB-MM-LCQUAD-16-16-16 WMB-MM-STDPX-8-4 WMB-MM-STDPX-8-8 4 Way SC DPX MM Wall Box 8 Way SC DPX MM Wall Box 4 Way SCAPC DPX SM Wall Box 8 Way SCAPC DPX SM Wall Box 8 Way LC QUAD MM Wall Box 12 Way LC QUAD MM Wall Box 16 Way LC QUAD MM Wall Box 16 Way LC QUAD MM Wall Box 8 Way ST DPX MM Wall Box 8 Way ST DPX MM Wall Box

For SM options of the above two SCDPX wall boxes please just replace the MM with SM. The LC Quad and

MTRJ adapters can also be used in the above wall boxes.

Specialist Wall Boxes can be manufactured to meet specific requirements. There is normally a Minimum Order Quantity required for this service.

Please contact us for further details regarding this service.

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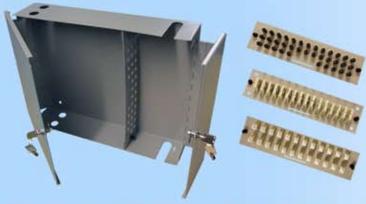
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### **Fibre Wall Mount Boxes**

#### Double Door and Single Door Lockable Wall Mount Fibre Boxes

We supply two types of lockable wall boxes, the Single Door lockable and the Double Door Lockable, they are both manufactured from 18 gauge 1.2mm mild steel and powder coated. Each wall box has an interchangable plate giving the option of using different types of fibre adapters in both Singlemode and Multimode.

#### Double Door Lockable Fibre Wall Box



The Double Door option has two 20mm cut outs at the bottom and top of the left hand splicing/terminating compartment. The right hand section has an oval cut out section at the top and the bottom for the patchcords to exit through. This wall box gives the user the option to allow access to the patch section alone or both compartment's if maintainence is required. This option has three different adapter plates, the 36 Port ST the 24 Port SC Simplex and the 16 Port SC Duplex. The ST plate can also be used for the FC and FCAPC adapters. The SC Simplex Plate can be used for the following adapters, LC Duplex, MTRJ, E2000 and E2000APC and the SC Duplex Plate can be used for the SCDPX, SCAPC DPX and the LC QUAD Adapters.

#### Single Door Lockable Fibre Wall Box



The Single Door option has 20mm knock outs at the top for cable entry and a oval cut out at the bottom for the patchcords to exit through. This option has two different adapter plates, the 8 Port ST and the 12 Port SC Simplex. The ST plate can be used for the FC and FCAPC adapters. The SC Simplex Plate can also be used for the following adapters, LC Duplex, MTRJ, E2000 and E2000APC.



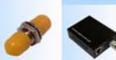
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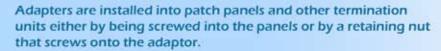


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### FIBRE OPTIC ADAPTERS

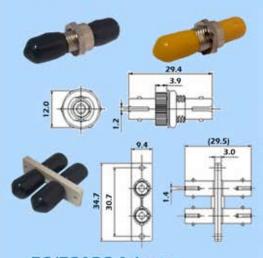
Fibre optic adapters are used in many forms of application the most common are in fibre patch panels.

Adapters come in Multimode or Singlemode form with either a phosphor bronze or ceramic alignment sleeve.





#### ST Adapter



#### Adapter Details:

The ST Adapter is a D Hole as Standard which makes it easy for installing into patch panels but can also be used as an inline coupler.

The ST Adapter is available in Multimode with a Phosphor Bronze alignment sleeve or in Singlemode with Zirconia Ceramic Sleeve.

ST Adapters are also available in a Plastic Duplex version with SC Duplex footprint.

Part No: AD-ST-MM AD-ST-SM AD-STDPX-MM-PL

AD-STDPX-SM-PL

Description:

ST Simplex Metal Multimode Adapter ST Simplex Metal Singlemode Adapter ST Duplex Plastic Multimode Adapter ST Duplex Plastic Singlemode Adapter

#### FC/FCAPC Adapter



#### Adapter Details:

The FC Adapter is a Double D Hole as Standard which makes it easy for installing into patch panels but can also be used as an inline coupler. The FCAPC is a Single D Hole Adapter.

The FC Adapter is available in Multimode with a Phosphor Bronze alignment sleeve or in Singlemode with Zirconia Ceramic Sleeve. The FCAPC Adapter is available in Singlemode with a Zirconia Ceramic Sleeve.

Part No: AD-FC-MM-DD AD-FC-SM-DD

Description:

FC Simplex Metal Multimode Adapter FC Simplex Metal Singlemode Adapter FCAPC Simplex Metal Singlemode Adapter AD-FCAPC-D

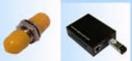
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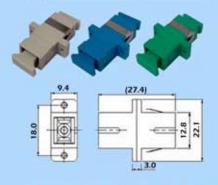




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### FIBRE OPTIC ADAPTERS

#### SC/SCAPC Simplex Adapter



#### **Adapter Details:**

The SC/SCAPC Adapter has a plastic body with a metal spring panel clip which makes it easy for installing into patch panels, but can also be used as an inline coupler.

The SC Simplex Adapter is available in Multimode with a Phosphor Bronze alignment sleeve or in Singlemode with Zirconia Ceramic Sleeve. The SCAPC Simplex Adapter is only available is Singlemode.

Part No: AD-SCSPX-MM AD-SCSPX-SM AD-SCAPCSPX-SM Description:

SC Simplex Multimode Adapter SC Simplex Singlemode Adapter SCAPC Simplex Singlemode Adapter

#### SC/SCAPC Duplex Adapter

#### Adapter Details:

The SC/SCAPC Adapter has a plastic body with a metal spring panel clip which makes it easy for installing into patch panels, but can also be used as an inline coupler.

The SC Duplex Adapter is available in Multimode with a Phosphor Bronze alignment sleeve or in Singlemode with Zirconia Ceramic Sleeve. The SCAPC Duplex Adapter is only available is Singlemode.

Part No: AD-SCDPX-MM AD-SCDPX-SM AD-SCAPCDPX-SM Description:

SC Duplex Multimode Adapter SC Duplex Singlemode Adapter SCAPC Duplex Singlemode Adapter

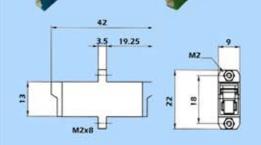


The E2000/E2000APC Adapter offers features no other adapter can match, it has set the standard for optical fibre interconnection with superb insertion & return loss characteristics, an internal shutter to prevent laser eye damage and also a latched lever mechanism to prevent accidental disconnection.

The E2000 Adapter is Blue in colour and the E2000APC is Green.

Part No: AD-E2000 AD-E2000APC Description:

E2000 Simplex Singlemode Adapter **EZ000APC Simplex Singlemode Adapter** 





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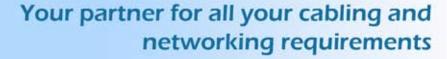


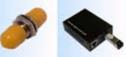












### **Hybrid Fibre Optic Adapters**

#### Adapter Details:

We supply various kinds of hybrid fibre optic adapters, including the FC, ST, SC, LC, series. These hybrid fibre adapters are single mode and multimode types, with PC or APC sleeves, in simplex and duplex style. They are widely used in fibre optic links. We also supply specialist MALE to FEMALE Hybrid Adapters on request.

Hybrid fibre optic adapters offer a solution for applications where two different kinds of fibre connectors or cable assemblies need to be linked with each other. Most of the hybrid fibre adapters use high precision ceramic sleeves which enable reliable ferrule mating and ensure low insertion loss and return loss during the

Hybrid fibre adapter features High-precision sleeve Compact design High performance

Hybrid fibre optic adapter applications Network environments integrating different configurations Telecommunications networks

#### LC-SC Singlemode Simplex Adapter



Part No: AD-LCSCSPX-SM

#### LC-FC Singlemode Simplex Adapter



Part No: AD-AD-LCFCSPX-SM

#### LC-ST Singlemode Simplex Adapter



#### SC-FC Multimode Simplex Adapter



Part No: AD-SCFCSPX-SM-PL

#### SC-ST Singlemode Simplex Adapter



Part No: AD-STSCSPX-SM

#### ST-SC Duplex Multimode Adapter



Part No: AD-STSCDPX-MM-PL

#### ST-FC Simplex Singlemode Adapter



SC-FC Singlemode Simplex Adapter



Part No: AD-SCFCSPX-SM-PL



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### **Fibre Optic Connectors**

Connectors are available in both Multimode and Singlemode. One piece design features pre-radiused ceramic ferrules.

Suitable for use with two part heat curing epoxies and cold cure anaerobic adhesives.

Available with 900um boots for pigtail termination or 3.0mm crimp ring and boot for patch cord production.



#### SC Connector

The SC Connector utilises a unique one piece construction which has been designed to provide fast and simple termination without the risk of epoxy leakage onto the internal connector parts.

SC Duplex Multimode 3mm BEIGE Boot and crimp Part No: CN-SCDPX-MM





SC Duplex Singlemode 3mm BLUE Boot and crimp Part No: CN-SCDPX-SM





SC Simplex Multimode 3mm BEIGE Boot and crimp Part No: CN-SCSPX-MM



Part No: CN-SCSPX-SM



SC Simplex Singlemode 3mm BLUE Boot and crimp

SC Simplex Multimode 900um BEIGE Boot Part No: CN-SC-MM900um





SC Simplex Singlemode 900um BLUE Boot Part No: CN-SC-SM900um





SCAPC Duplex Singlemode 3mm Green Boot with and crimp

Part No: CN-SCAPCDPX





Part No: CN-SCAPCSPX



SCAPC Simplex Singlemode 900um GREEN Boot Part No: CN-SCAPC-900um





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### Fibre Optic Connectors

#### LC Connector

The LC fibre optic connectors and related LC fibre products are widely used in telecommunications and on various kinds of fibre optic equipment. LC comes from the name Lucent Connector; the name suggests its designer. LC is a typical small form fibre connector that dominates the market today.

The LC connector is about half the size of the SC connector and has a 1.25mm ferrule

LC Duplex Multimode 3mm GREY Boot and crimp Part No: CN-LCDPX-MM



LC Duplex Multimode 900um AQUA Boot Part No: CN-LCDPX-MM-900um-AQ



LC Simplex Multimode 900um GREY Boot Part No: CN-LC-MM900um



LC Duplex Multimode 3mm GREY Boot with 2mm Heatshrink crimps Part No: CN-LCDPX-MM-2mm-Heat



LC Duplex Multimode 3mm GREY Boot with 2mm Heatshrink crimps and 3mm crimps Part No: CN-LCDPX-MM-BOTHCRIMPS



LC Simplex Multimode 3mm GREY Boot with crimp Part No: CN-LCSPX-MM-3mm



LC Duplex Singlemode 3mm WHITE Boot and crimp Part No: CN-LCDPX-SM



LC Duplex Singlemode 900um AQUA Boot Part No: CN-LCDPX-SM-900um-AQ



LC Simplex Singlemode 900um WHITE Boot Part No: CN-LC-SM900um



LC Duplex Singlemode 3mm WHITE Boot with 2mm Heatshrink crimps Part No: CN-LCDPX-SM-2mm-Heat



LC Duplex Multimode 3mm GREY Boot with 2mm Heatshrink crimps and 3mm crimps Part No: CN-LCDPX-SM-BOTHCRIMPS



LC Simplex Singlemode 3mm WHITE Boot with crimp Part No: CN-LCSPX-SM-3mm



The LC Simplex 3mm connecotors are available with the 2mm heat shrink but the heatshrinks have to be ordered separately.





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### **Fibre Optic Connectors**

#### FC Connector

The FC fibre optic connectors are widely used on equipment and cable assemblies, especially on the test equipment interface. FC is designed with a cylindrical metal coupling nut with keyed sleeves, it is used in long haul and local network connections. FC fibre optic connectors use a 2.5mm ceramic ferrule and the FC ferrule has a pull-proof mechanism for durability.

FC Simplex Multimode 3mm BLACK Boot and crimp Part No: CN-FC-MM



FC Simplex Multimode 900um BLACK Boot Part No: CN-FC-MM900um



FC Simplex Singlemode 3mm YELLOW Boot and crimp Part No: CN-FC-SM



FC Simplex Singlemode 900um BLACK Boot Part No: CN-FC-SM900um



#### ST Connector

The ST connector offers a high performance, quick fit, epoxy-polish termination at a very competitive price.

The connector has an all metal body construction which provides superior mechanical performance and simple termination on to all common cable constructions. The connector has a twist-lock bayonet coupling, its 2.5mm keyed ferrule meets the durability and repeatability requirement for fibre optic links.

ST Simplex Multimode 3mm BLACK Boot and crimp Part No: CN-ST-MM



ST Simplex Multimode 900um BLACK Boot Part No: CN-ST-MM-900um



ST Simplex Singlemode 3mm YELLOW Boot and crimp Part No: CN-ST-SM

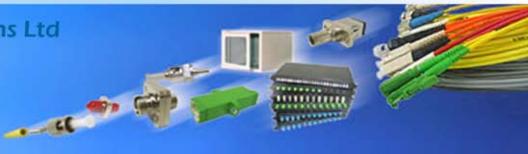


ST Simplex Singlemode 900um YELLOW Boot Part No: CN-ST-SM-900um



The boot colours shown are the standard however alternative boot colours are available on some connectors, please contact us if there is a specific colour that is required.

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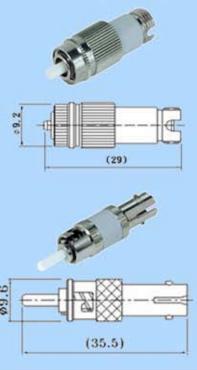


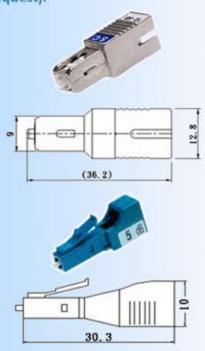
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### FIBRE OPTIC PLUG ATTENUATORS

An attenuator is a component that is installed in a fibre optic transmission system to reduce the power in the optical signal. It is often used to limit the optical power received by the photo detector to within the limits of the optical receiver.

We supply a wide range of Attenuators with an introduced db loss ranging from 1db to 30db. We supply connector types such as SC,FC,ST,LC and MU both in Multimode and Singlemode (APC's available on request).





Attenuation Value	0.5dB	~ 30dB
Operating Wavelength	1240 ~ 1620nm (E	Dual 1310/1550nm)
particular de la Companya del Companya de la Companya de la Companya del Companya de la Companya	Pren	nium
	UPC	>55dB
Return Loss	APC	>65dB
Attenuation	1~ 7 dB	±0.5dB
Accuracy	8 ~ 12 dB	±0.7dB
	13 ~ 17 dB	±1.0dB
	18 ~ 25 dB	±1.3dB
Maximum Optical Input Power	1000r	mW
Polarization Dependent Loss	<=0.1	dB
Operating Temperature Range	-40 to	75
Storage Temperature Range	-40 to	85
Humidity	95%F	RH





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### **Pre Terminated Fibre Optic Assemblies**

Pre-terminated cables offer several key benefits over on-site splicing and terminating.

- Pre-terminated cable can be installed by people with no special installation skills or equipment.
- The cables are supplied on a drum with the terminations adequately protected for installation in ducting where the cable is pulled through.
- Costs are dramatically reduced due to the lack of on-site splicing and terminating.
- Pre-terminated cables are supplied with test results prior to installation.

#### Fibre Types Available:

62.5/125 (OM1) 50/125 (OM2) 50/125 (OM3) 9/125 (OS1)

#### **Termination Available:**



Fibre Core Counts Available:

2, 4, 8, 12, 16, 24, 48, 72 and 96

Pre-terminated fibre cables are available in the following cable types:

**Tight Buffered** is the standard cable used for most internal and external applications.

**Loose Tube** can be used and the tail ends are buffered up to 900um using a clear tube so the colours can still be identified.

**Corrugated Steel Tape (CSTA)** is normally required where the cable needs to have added protection against damage to the exposed cable.



**Steel Wire Armour (SWA)** this cable offers great protection and is normally required if the cable is being used for direct burial, or where there may be an issue with rodents eating into cables.

Military Grade Cable this cable is used for applications such as outdoor broadcasting, and military training grounds where the cable needs to be redeployed many times. This cable also has great crush resistant properties capable of taking foot and vehicle traffic.

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### **Pre Terminated Fibre Optic Assemblies**

Pre-terminated fibre cables are available in lengths from as low as 5m and up to lengths of 2km.

All our preterms are made to the specific length required by the customer and can be tailored to suit most requirements. The terminations are protected in a 25mm clear tubing that is heat shrunk over the gland and is easily removed on site before installation.

As the picture on the right shows, the terminations are staggered so that they can fit inside the tube, this is the standard design however we can offer straight end teminations but they have to be contained inside a plastic box as shown in the straight end termination picture. This method requires the box to be cabletied to the side of the drum and the box size depends on the core count.

Preterms can be supplied with a pre installed panel at one end if required.

All Preterms are supplied with a test cetificate showing the test results for each core in both directions.

All Pre-terminated fibre cables below 25m are supplied coiled and not on a reel unless requested.

All Pre-terminated fibre cables above 50m are supplied with a metal pulling eye at one end that is attached to the kevlar yarn of the cable. All cables below this length are installed using the pulling sock that contains the terminations.

If you require a specialist lead manufactured to meet your specific requirements please contact us to discuss the design and we will work with you to produce a product that meets all your needs

WE ALSO OFFER PRE-TERMINATED COPPER LOOMS PLEASE CONTACTS US FOR FURTHER DETAILS



Straight End Termination Containment



Straight End Termination Containment, on Reel





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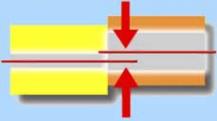


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### Fibre Optic Mode Conditioning Cables

Mode Conditioning Cables are designed to be used with Gigabit Ethernet and other applications where both Singlemode and multimode interconnects must be maintained. These cables are primarily used in Gigabit (1000Base-LX) applications to prevent DMD (Differential Mode Delay).

#### Diagram showing offset splice:



Transmit insertion Loss (dB) Receive insertion Loss (dB) Return Loss Temperature range

Typical 0.35dB Typical 0.15dB >=55dB -45 C to + 85 C



Mode conditioning cables are designed for Gigabit Ethernet multimode applications at 1300nm wavelength; the application standard is IEEE 802.3z. All mode conditioning fibre optic patchcords are made with duplex cable; with a single mode to multimode offset fibre connection part in one of the two legs, as you can see in the picture above.

Mode conditioning leads are available in both 62.5/125 and 50/125. The 62.5/125 is the more common of the two.

We stock a variety of mode conditioning leads with various connections such as LC-ST, LC-SC, SC-SC and SC-ST. The first termination is always the one with the singlemode leg on so for example the LC-ST leads would have the singlemode leg on the LC end. Mode conditioning leads are normally supplied in lengths from 1m to 5m but we can offer longer length leads if required and we stock some options in 10m lengths.



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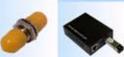












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### **Fibre Optic Loopbacks**

Loopbacks are used for testing, engineering and burn-in stage of boards or other equipment. They provide an effective way of testing the transmission capability and receiver sensitivity of network equipment. One connector is plugged into the output port, while the other is plugged into the input port of the equipment. We supply the below terminations as standard, however other options are available on request:

Our standard stock of Loopbacks is in Singlemode but they are available on request in Multimode.

LC Loopback: Part No: 9-LB-LC-LC



ST Loopback: Part No: 9-LB-ST-ST



#### Features:

For equipment self-testing and engineering

Provide effective way of testing the transmission capability and receiver sensitivity of network equipment

Available in all forms of connector interface, including SC, ST, LC, MTRJ and FC Loopback

MTRJ Loopback: Part No: 9-LB-MTRJ-MTRJ



SC Loopback: Part No: 9-LB-SC-SC



FC Loopback: Part No: 9-LB-FC-FC



Loopback assemblies are available as standard in 1.8mm fibre cable but 900um or 2.8mm cable is also available on request:















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### **Fibre Splice Boxes**

We supply a variety of splice enclosures from a simple small metal splice box for internal use to a fully IP66 rated external splice enclosure. As standard we supply the below items but if you require a splice box or enclosure for a specific application please contact us to discuss your requirements.

#### 4 Core IP55 Poly Splice Box



Dimension: 155 x 110 x 74mm Part No: SPLICE-BOX-IP55-4CORE-PL

#### 4-16 Core Metal Lockable Splice Box



Dimension: 185 x 210 x 65mm Part No: SPLICE-BOX-METAL-SDL

#### 8-24 Core IP55 Poly Splice Box



Dimension: 220 x 170 x 86mm Part No: SPLICE-BOX-IP55-8-24CORE-PL

### 4-24 Core IP56 Poly Splice Box



Dimension: 380 x 300 x 120mm Part No: SPLICE-BOX-IP56-4-24CORE-PL

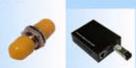
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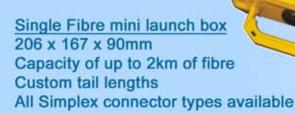


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## FIBRE LAUNCH LEADS:

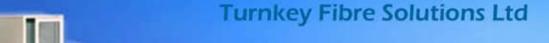
Watertight, crushproof, and dust proof Easy-open, double-step latches Open cell core with solid wall design- strong light weight O-ring seal

Automatic Pressure Equalization Valve Stainless steel components Ideal for on site and harsh environment use



















## **Media Converters**

We supply a range of fibre media converters from the standard 10/100 Base TX Fibre to RJ45 converter to SFP 10/100/1000 Auto negotiating converters. All our media conveters come with an external power supply and can be used as stand alone or rack mounted units using the 14 Slot rack mountable converter chassis.



These media converters are designed to convert data signal between 10/100 Base TX and 100 Base-FX fast Ethernet. The Media converter is connected between Fibre and twisted copper cable to allow smooth network operation.

Media converters allow the transmission distance of existing copper RJ45 10 Base –T and 100 Base –TX equipment such as switches, routers and NIC's to be extended over optical fibres.

Simple plug and play installation 10/100 Mbit/s RJ45 Copper port Standard connector interface ST and SC Can be used standalone or in a 19" rack. (includes external power supply)

## 10/100 Multimode ST & SC Fibre Media Converters

#### Product:

The 10/100 series is a 10/100Mbps intelligent adaptive fast Ethernet media converter. It can implement data transmission between twisted pair electrical signals and optical signals which are the two type of network connection media. This type of media converter can extend the transmission distance of a network from 100M over copper wires to 2KM in which there is no help of any other converter. It can be installed in 14 rack media converter chassis or used as a stand alone unit.

#### Features:

Suporting: Full duplex and half—duplex transmission and capable of automatic negotiation. efficient built in switching core, to implement flow control and reduce broadcast packets.

Supporting: The selection of mutiple types of fibre ports such as dual-fibre multi-mode, dual-fibre single –mode and single –fibre single –mode, to satisfy the extended requirements of users.

#### Part No: CM-SC100-AT



Part No: CM-ST100-AT





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## Media Converters

## 10/100 Singlemode SC Fibre Media Converters

#### Product:

The 10/100 series is a 10/100Mbps intelligent adaptive fast Ethernet media converter. It can implement data transmission between twisted pair electrical signals and optical signals which are the two type's of network connection media .This type of media converter can extend the transmission distance of a network from 100M over copper wires to 120KM in which there is no help from any other converter. It can be installed in 14 rack media converter chassis or used as a stand alone unit.

#### Features:

Supporting: Full duplex and half -duplex transmission and capable of automatic negotiation, efficient built in switching core, to implement flow control and reduce broadcast packets.

Supporting: The selection of multiple types of fibre ports such as dual-fibre multi-mode, dual-fibre single –mode and single -fibre single -mode, to satisfy the extended requirements of

Part No: CM-SC100-AT-SM



#### 1000 Singlemode & Multimode SC Fibre Media Converters

#### Product:

The 1000 Base series is an intelligent adaptive fast Ethernet media converter. It can implement data transmission between twisted pair electrical signals and optical signals which are the two type's of network connection media. This type of media converter can extend the transmission distance of a network from 100M over copper wires to 550m in MM and in SM 110KM in which there is no help from any other converter.lt can be installed in 14 rack media converter chassis or used as a stand alone unit.

#### Features:

Supporting: Full duplex and half -duplex transmission and capable of automatic negotiation, efficient built in switching core, to implement flow control and reduce broadcast packets.

Supporting: The selection of mutiple types of fibre ports such as dual-fibre multi-mode, dual-fibre single -mode and single -fibre single -mode, to satisfy the extended requirements of

Part No: CM-SC1000-AT-MM



Part No: CM-SC100-AT-SM







**Turnkey Fibre Solutions Ltd** 

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## 10/100/1000 SFP Fibre Media Converters

#### Product:

The 10/100/1000 series is an Ethernet media converter that converts media transmission between UTP Copper cabling and fibre SFP [Small Form-Factor Pluggable] Transceivers. The copper-to-fibre module is available in 10/100/1000M Gigabit Ethernet types, allowing seamless integration between Fast/Gigabit Ethernet networks using unshielded twisted pair [UTP] copper cabling, and Gigabit fibre networks.

#### Features:

Conversion between different transmission speeds and media types.

Standalone and compact hardware design.

Auto-negotiating Ethernet port (Speed and Half/Full Duplex). Auto-crossover Ethernet port (Supports Auto MDI/MDI-X).

Standard open Fibre slots for SFP Transceiver. Built-in Link Loss Forwarding Technology.

Easy Installation, Easy Troubleshooting.



## 2U 14 Slot Media Converter Chassis



## Overview

This is a cost-effective media converter rack (2U) widely used in the equipment rooms. Different types of module type media converter can be inserted into this rack, which has 14 slots. It is furnished with two power supplies, the main power supply and a spare one, and supports its automatic switch-over.

#### Features

The configuration of active/standby power supply ensures uninterruptible operation of the system. Provided with two power supplies (AC 220V, and DC-48V), enabling the system to work under many operating environments.

Supporting simultaneous operation of several module type media converters at different rates, which greatly improves system adaptability.

Each card supports hot swapping.



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# Your partner for all your cabling and networking requirements

## **Fibre Optic Splitters**

## Single Mode Splitters

We supply a wide variety of Fibre Optic Splitters/Couplers to meet our customer requirements

## **Applications**

- · Fiber optic equipment & systems
- CATV networks
- Data communications
- Passive optical networks (ATM, WDM, Ethernet)
- · Fibre to the Home (FTTH)

T Couplers split one optical input into two outputs, or combine two inputs into one output.

Tree Couplers divide uniformly optical signals from input ports to multiple outputs. These can also be operated in the reverse direction to combine multiple wavelengths into one or two fibres.

Wave Division Multiplexers (WDM) are units that can take several wavelengths coming in on one optical input and split them out into several outputs, these have the option of working in reverse as well.

As well as supplying the individual units we offer a variety of containment options for these products. We can supply splitters contained inside a standard 19" rack mountable panels or in a specially designed product to meet the requirements of the application.

As these products have such a vast specification range please contact us to discuss your requirements so that we can offer the correct product for your application.

## T Coupler/Splitter

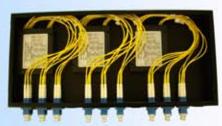




Wave Division Multiplexer



19" Rack Mountable Splitter Panel







Tel: 0845 2000 718 Fax: 0845 2000 719











Your partner for all your cabling and networking requirements

## Fibre to the Home Products (FTTH)

## **Fibre Termination Enclosures**

## Applications for both types:

- · Splice enclosure and termination box for residential (MDUs) installations.
- · For use in other small installations such as fibre to the desk applications.
- · Can be used for direct termination or for fusion splicing fibre pigtails.

## Internal/External Option:

This unit can be used in conjunction with blown fibre units and is suitable for certain external applications as it has an IP54 rating.

It has cable access point at the bottom and rear of the unit with a cover that clips on and off easily. This unit can house either 4 x SC Simplex adapters or

## Internal and external option (IP54)





**Dimensions:** (L)190mm x (W) 130mm x (H) 45mm

## Internal Only Option:

4 x LC Duplex adapters.

The internal unit can be used for the same applications but has no IP rating and is for internal use only.

This option is a slightly smaller unit with a similar easy clip on and off cover. It has a seperate hinged splice compartment that sits over the adapter section that can hold 4 x 40mm splice protectors.

This unit has the option of being able to house either 4 x SC Simplex adapter, 4 x LC Duplex adapters or 4 x FC Square flanged adapters.

## Internal option



#### Value and benefits

- · Time and cost savings with easy installation and low maintenance.
- Designed for FTTH installations (FTTH)
- · Intergrated fibre bending guides
- Stylish design for visible installations
- · Each unit is designed for wall mounting but can be installed inside a cabinet quite easily





**Dimensions:** (L)150mm x (W) 110mm x (H) 30mm



# **Turnkey Fibre Solutions Ltd**













## Fibre to the Home PATCHCORDS (FTTH)

With Fibre to the home now being demanded more in the industry we have designed a selection of patchcords to meet the requirements of fibre in home applications. FTTH cables can be installed in areas where a normal cable may not perform efficiently, for example where tight corners in a home cannot be avoided.

If you require something different from the below please contact us and we will do our best to design a patchcord to meet your requirements.

## Armoured Patchcords using G657B Bend Insensitive Fibre:

Armoured patchcords are made using a fibre cable that has a stainless steel armouring inside that protects the fibre more than a normal lead. These leads can be used in applications such as harsh environment but are also suitable for FTTH as they offer greater protection over normal fibre and also increased bend radius abilities due to the G657B Fibre.



## **Optical Bend Limiting Tubing Patchcords:**

We offer OBLT Patchcords for use in confined spaces and areas where the fibre cable needs to have extra protection and also be rigid and able to bend in tight spaces. These cables are available in both Simplex and Duplex options. The fibre cable is contained inside the 5mm White tubing that offers the protection.



## **G657B Bend Insensitive Patchcords:**

The bend-insensitive cables have less attenuation compared with standard fibre cables and this will make the installation and maintenance of the fibre optic cables more efficient. Due to this, these cables can be installed in areas where a normal cable may not perform efficiently, for example in FTTH networks where tight corners in a home cannot be avoided.

These cables are available in both Duplex and Simplex options.





Example of bend-insensitive fibre under pressure from staple





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## Your partner for all your cabling and networking requirements

## Fibre Optic Cable

We supply a wide variety of fibre cable from standard Tight Buffered to special breakout cable manufactured to specific requirements.

We supply from 4-48 Cores as standard, anything above this amount will have to be quoted on a project basis.

We can supply most standard cable by the next working day. The cable will be cut and reeled to the required lengths and there is no minimum order requirement on standard cable.

## TIGHT BUFFERED CABLE



Tight buffered cable consists of tight buffered 900um fibre in a common sheath. The UV stabilized sheath makes the cable suitable for outdoor use. The sheath is also LSZH as to fulfil environmental requirements. The 900um tight buffered fibres are individually coloured for identification

## LOOSE TUBE CABLE



Loose Tube cable comprises of either one or several polymer tubes which contain several fibres. The Polymer tube contains either a gel or a water absorbent powder to protect the fibre against water damage. There may be a reinforced polymer bar running the length of the cable for support and this is all then encased in a protective outer sheath.

## ARMOURED LOOSE TUBE CABLE



Armoured Cable is generally used for direct burial in areas where rodents are a problem. The cable either has a steel tape or wire to protect the fibre from being damaged.

## DUPLEX ZIPCORD CABLE



Duplex and Simplex Zipcord cable is generally used for patchcord manufacturing but it can be used to interconnect equipment in comms rooms where a patchcord can not be installed.

## SIMPLEX ZIPCORD CABLE



Technical data sheets for each specific cable are available on request.



# **Turnkey Fibre Solutions Ltd**













# **Copper Products**

## **CAT5E & CAT6 Patchleads**

We stock a large range of standard CAT5E & CAT6 patchleads in different sizes and colours. Our standard colour is GREY however we also stock RED, BLUE, YELLOW, BLACK, ORANGE, PURPLE, GREEN and PINK.

Our standard lengths are 0.5m 1m 2m 3m 4m 5m 10m. We supply 15m and 20m in Grey other colours are subject to cable availability.

Our standard patchcord comes with a reinforced boot however we also supply unbooted, and snag proof boots on request.

If what you require is not a stock item then we can manufacture any copper lead to your requirements such as cross over leads or RJ11 leads.



**SNAG PROOF BOOT** 



BOOTED



UNBOOTED



Stock Product Range:

CATSE UTP BOOTED (STANDARD) CATSE UTP LSZH FLAT CATSE UTP UNBOOTED CATSE UTP BOOTED LSZH

CATSE UTP PVC CROSSOVER CAT6 UTP BOOTED LSZH CATSE FTP PVC

CAT6 UTP BOOTED

Other copper leads that we manufacture include the:



BT431A Leads



## CATEGORY 5 / TELECOM LINE ADAPTERS

These adapters allow analogue telephones / modems to be connected to Ethernet (Cat 5) wall sockets or UTP networks, with a view to running a phone system over Cat 5 structured cabling.

Secondary: Converts BT style plugs to structured wiring RJ45 plugs whilst also adjusting the signal impedance to conform to OFTEL standards.

PABX master: Performs the same functions as the Secondary adapter, whilst also featuring a bell capacitor to ring the bell on the telephone. This unit is for use on a PABX telephone system.

PSTN master: Performs all the above functions, whilst also featuring surge protection to disperse any electrical spikes. This unit may be used on a direct or incoming line.



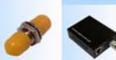


**Turnkey Fibre Solutions Ltd** 











# **Copper Products**

## **USB Cables and Components**

USB stands for Universal Serial Bus, this was designed to replace older serial and parallel ports and runs a range of peripherals, i.e. Keyboards, Mice, Joysticks, Modems and Monitors etc.

USB 2 is much faster than the old USB 1.1. USB 2 can transfer data up to 480Mbps where as the USB 1.1 could only work at a maximum of 12Mbps. [USB now stands for USB2]

USB is easy to use because Windows 98 [and SE], ME / 2000, XP and Mac OS will automatically recognise the newly installed devices and you won't have to reboot after installing.

The maximum cable length between USB devices is 5 Metres, with a maximum 25 Metres achieved using several USB Line Boosters.



We stock a variety of USB cable types in various colours, Grey being the standard. See below examples of the cables that we stock. If there is a specific combination of terminations required please contact us to check stock availability. If we do not hold it in stock as standard then we can quote a price and lead time to manufacture it. Our USB cables are UL Approved.

Type A Male -Type A Male



Type A Female -Type A Male



Type MINI B Male -Type A Male



Type B Male-Type A Male



## **USB Repeater Cable**

Extend your USB device over the 5 metre maximum by using the active Repeater Cable which acts as a single port hub, which means that multiple cables can be cascaded (up to 5) to increase the distance between your computer and USB devices. It can extended the distance of a USB device up to 25 Metres.

## **USB Gender Changers**

Type A Female - Type B Male Type A Female - Type B Female Type A Male - Type B Female Type A Female - Type A Female



**USB Repeater Cable** 





# **Turnkey Fibre Solutions Ltd**













# **Copper Products**

## **CAT5E & CAT6 Components**

### **CATSE Panels**





Category 5E patch panels comply with EIA TIA Standard for enhanced Category 5 and are available in 16 Port, 24 Port and 48 Port. Each panel offers a choice of labelling with the option to use the screen printed fields on the panel facia or the slide label system which is enclosed with each panel.

## **CAT6** Panel



CAT6 patch panels consist of a number of 8 way blocks of RJ45 cockets, housed in a plastic moulding, each 8 sockets has its own label.

## CATSE & CAT6 Module





We supply a variety of CAT5E & CAT6 modules from the standard options to the low profile and ones that are more suited for floor box installation.

## **CAT5E & CAT6 Module Face Plates**





We supply a variety of CAT5E & CAT6 face plates either loaded or empty with blanking plates supplied.

## **Bulk Copper Cable**

CATSE LSZH FTP (Shielded)

We supply a range of copper cable for all types of application.

CATSE PVC CAT6 PVC
CAT5E LSZH CAT6 LSZH
CAT5E PVC FTP (Shielded)

Bulk Copper cable Reeled or boxed





#### CW1308 & CW1308B Multipair Voice Cable

CW1308 WHITE INT LSZH	CW1308B BLACK INT/EXT LSZH

 10 Pair + Earth
 10 Pair + Earth

 20 Pair + Earth
 20 Pair + Earth

 50 Pair + Earth
 25 Pair + Earth

 100 Pair + Earth
 50 Pair + Earth

 160 Pair + Earth
 100 Pair + Earth

 200 Pair + Earth
 200 Pair + Earth

CW1308 Multipair Voice Cable



CW1308B Multipair Voice Cable



Please contact us with specific requirements and we will quote you a price and lead time.





## **Turnkey Fibre Solutions Ltd**









Your partner for all your cabling and networking requirements

## **Fibre Optic Consumables**



# **Turnkey Fibre Solutions Ltd**



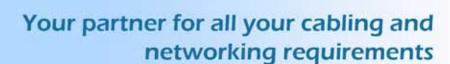












# **Fibre Optic Tooling**





Miller Keylar Shears



Miller Primary Buffer Strippers



Miller Patch Cable Jacket



Cletop-5 Cleaning Cassette



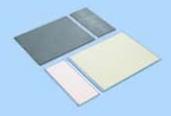
DualScribe Reversible Blade Fibre Optic Scribes



Fibre Scribes



Hand Polishing Plates & Mats



Fibre Cleaving Tile



Hand Polishing Tools (Plastic)



Hand Polishing Tools (Metal)



**HUX In-Adaptor Ferrule Cleaner** 



Variable Temperature Curing Oven





**Turnkey Fibre Solutions Ltd** 



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