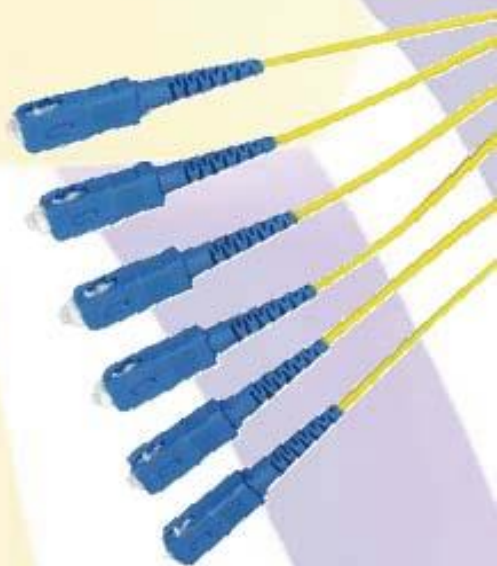
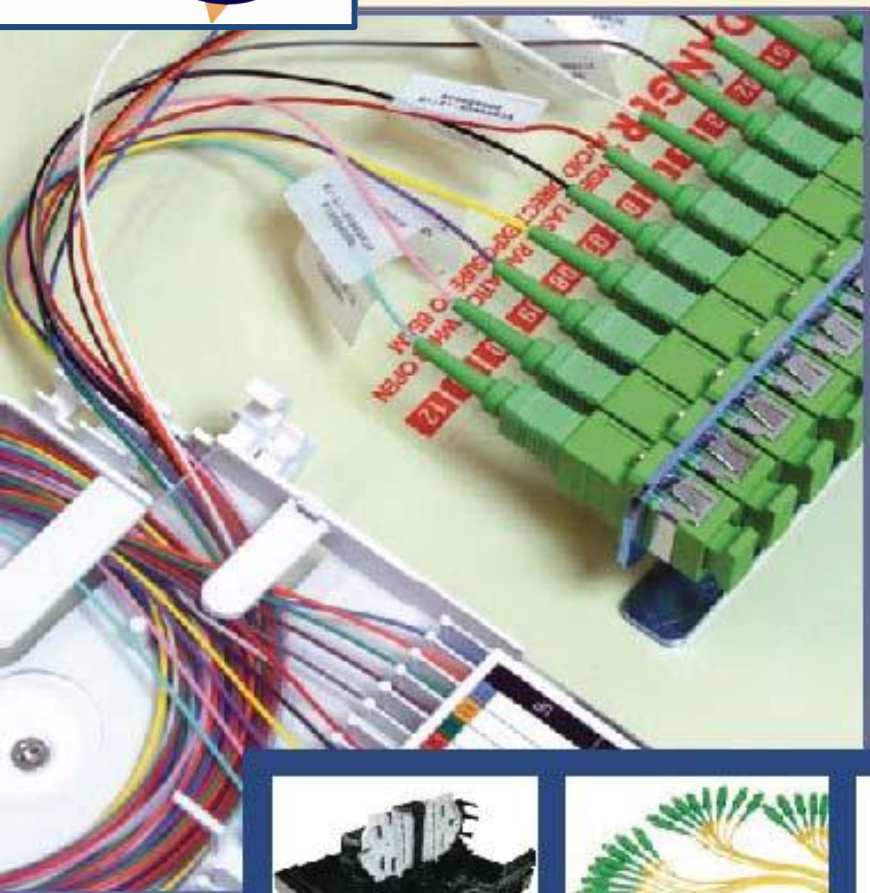




CMATIC



TELECOMMUNICATIONS CATALOGUE

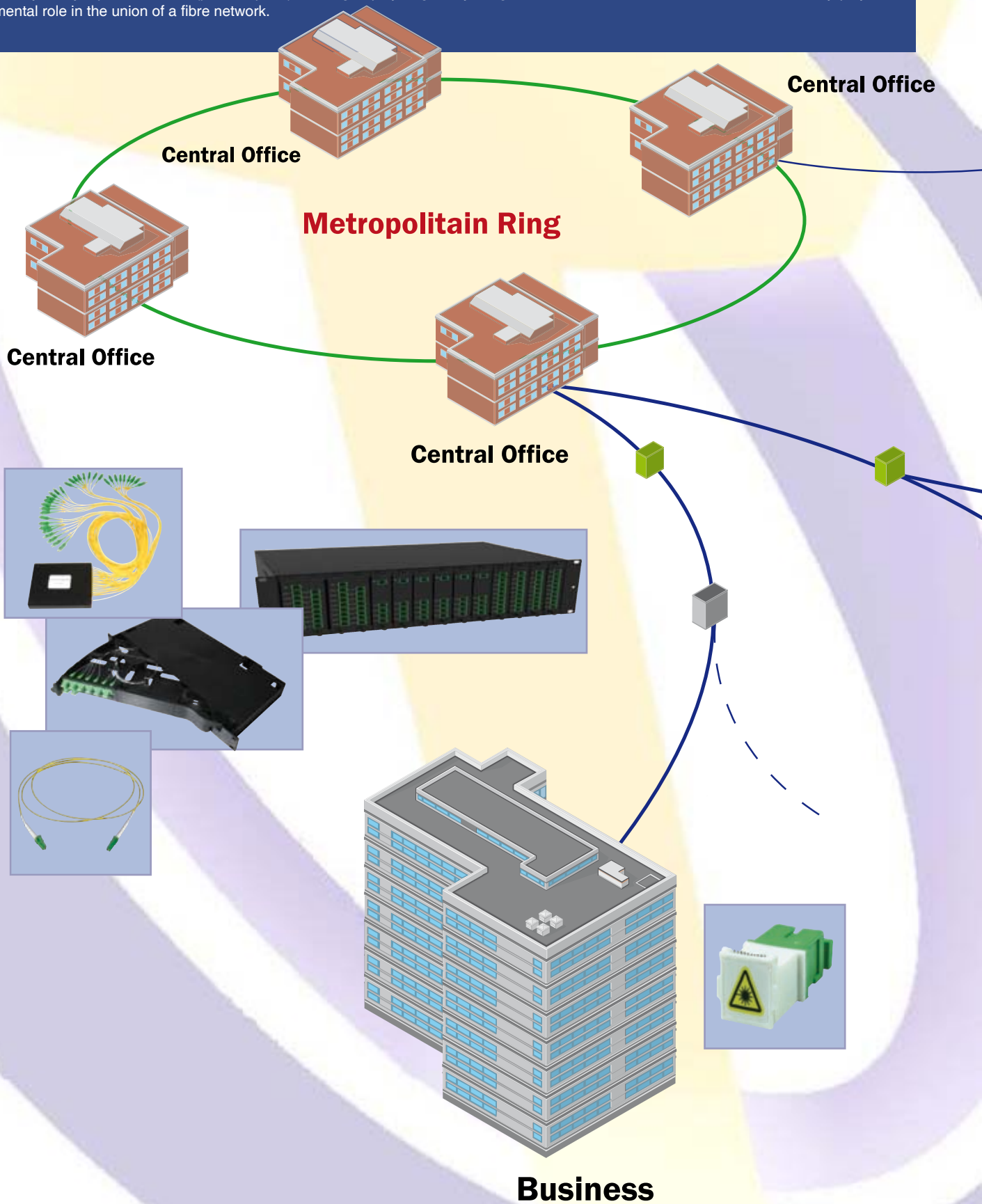


Contents

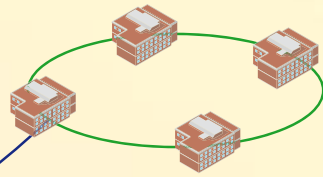
Fibre To The Home	02
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Fibre To The Home

Fibre to the x is the growing market within the Telecommunications sector. While PONs (passive optical networks) are emerging as the favoured approach by many Operators, PTP (point to point) is being deployed globally. Regardless of the network infrastructure, connectivity plays a fundamental role in the union of a fibre network.



Core Network



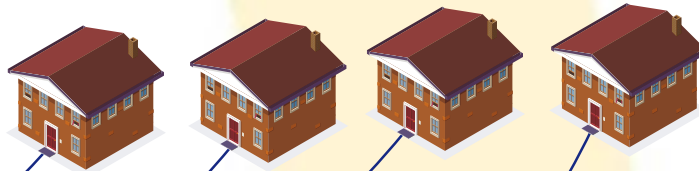
To support the growing applications and opportunities in FTTx Cmatic has developed a complete connectivity solution supported by our own pre-terminated expertise. Our connectivity solutions are fostered by a range of products for splitting, distribution, patching and splicing.

Market demand shows requirements for a modular, easy to use solution that can be tailored for specific customer requirements.

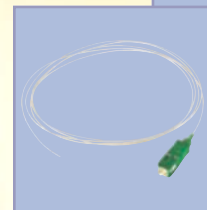
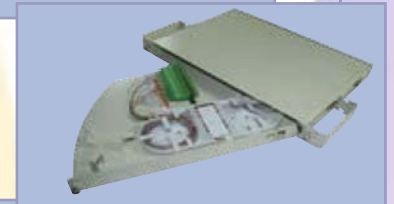
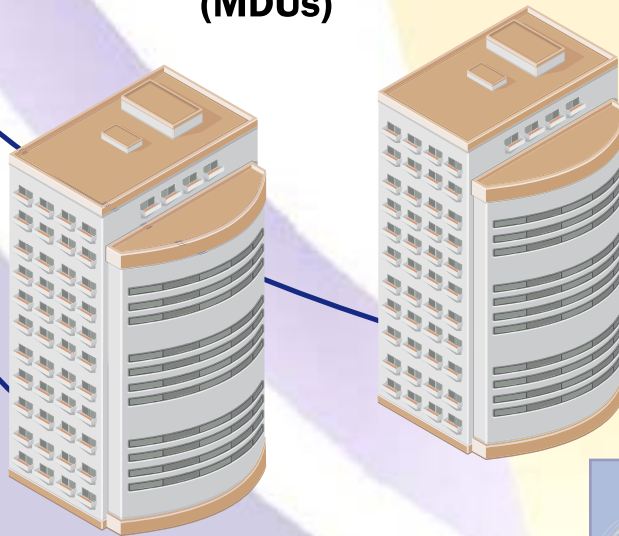
<i>FTTH Cable</i>	5
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Residential



Multi Dwelling Units (MDUs)



Access Network

FTTH Cables

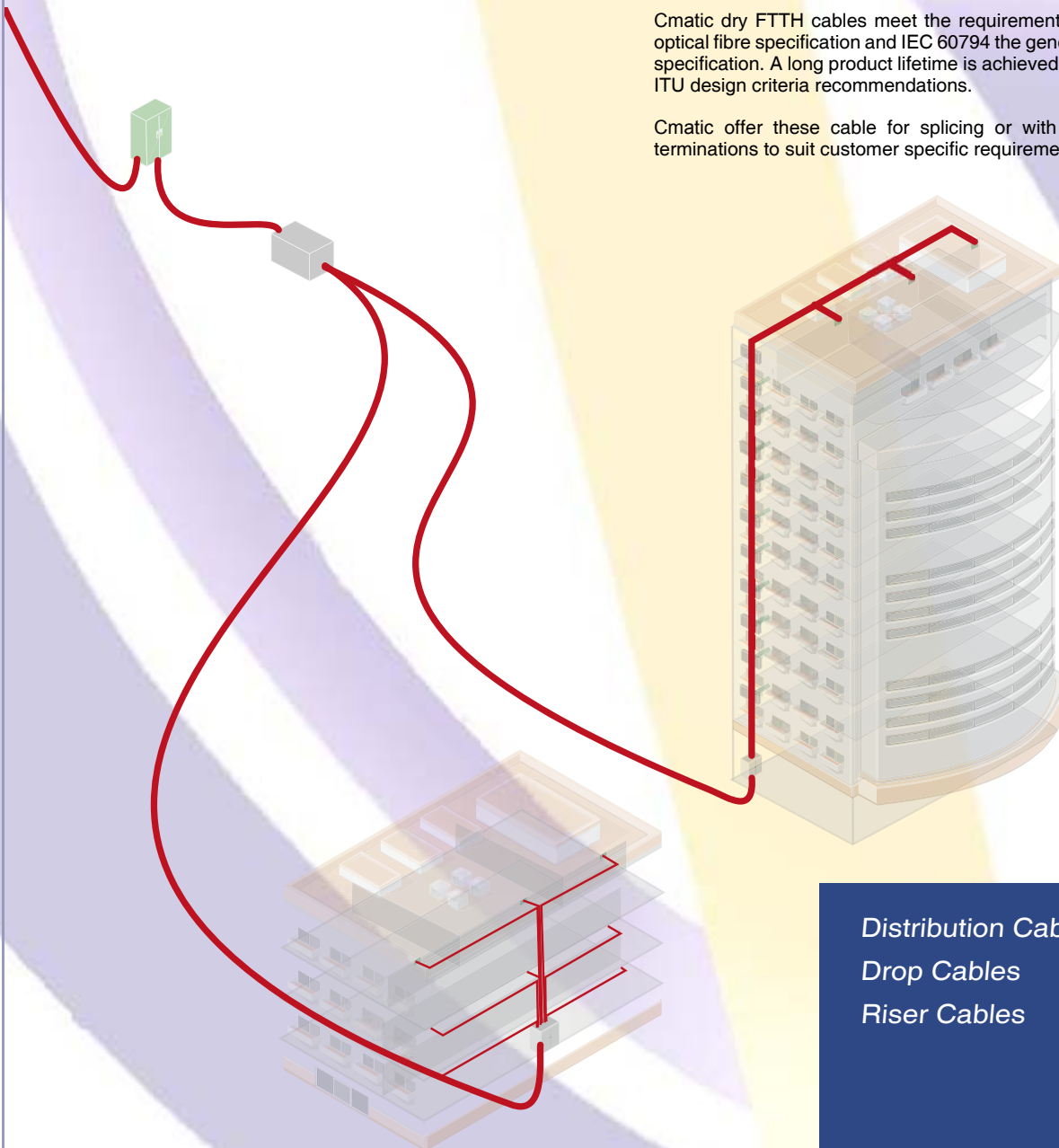
Cmatic has designed a range of cables specifically for the fibre within the access network. Our range of cables are constructed single to multi element

Cmatic has developed a range of completely dry compact fibre optic cables to meet the requirements of the FTTH access and pre term interconnect market places. The completely gel free dry core and dry tube designs are ideal for low and high fibre count pre-termination and rapid on site installation by connectorisation or splicing.

The cables are available with a range of jacket and protection options for internal/external and external environments including Access, Riser and Drop. Water blocking of cable cores and tubes is achieved by the use of Super Absorbent Polymer (SAP) polymer materials which eliminate the need for gel materials. Environmental resistance of outdoor cables is provided by black Polyethylene (PE) jacketing, and enhanced fire performance is achieved by the use of Low Smoke Zero Halogen (LSZH) jacketing material on indoor/outdoor cables. SZ reverse oscillation stranding is used with multi tube cables and in the riser to give easy breakout at each floor without the need to cut and splice fibres travelling to other floors.

Cmatic dry FTTH cables meet the requirements of IEC 60793 the optical fibre specification and IEC 60794 the generic cable requirement specification. A long product lifetime is achieved through adherence to ITU design criteria recommendations.

Cmatic offer these cable for splicing or with factory made pre-terminations to suit customer specific requirements



Distribution Cables	5
Drop Cables	10
Riser Cables	13

5 Element External Completely Dry Multi Loose Tube FTTH Access and Distribution Cable

Description

Up to 40 fibre, 5 element completely dry ITU-T G.652D singlemode 250µm multi dry loose tube rodent resistant external dry core duct cables with rodent resistant E-glass strength members, and High Density Polyethylene (HDPE) jacket

The 5 element multi loose tube cable construction consists of up to 40, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate. The tubes are SZ stranded around a Fibre Reinforced Plastic (FRP) central strength member with waterswellable threads and waterswellable tape. Helically applied waterblocking E-glass non metallic strength members with ripcord and black High Density Polyethylene (HDPE) jacket.

Applications

- ▶ Ideal for external duct FTTH Access and Distribution applications
- ▶ Suitable for external applications where environmental resistance is required
- ▶ Suitable for one or both end pre-termination

Features

- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ E-glass yarn for rodent resistance
- ▶ PE jacket for environmental protection and water permeation resistance

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP/E-glass
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	73
Fibre count	n	8, 16, 24, 32, 40
Nominal outer diameter	mm	9.6 ± 0.4
Maximum tensile load (Short Term)	N	2700
Maximum tensile load (Long Term)	N	1200
Minimum bend radius	mm	Installed 95
Minimum bend radius	mm	Loaded 190
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Tube Identification (IEC 60304)

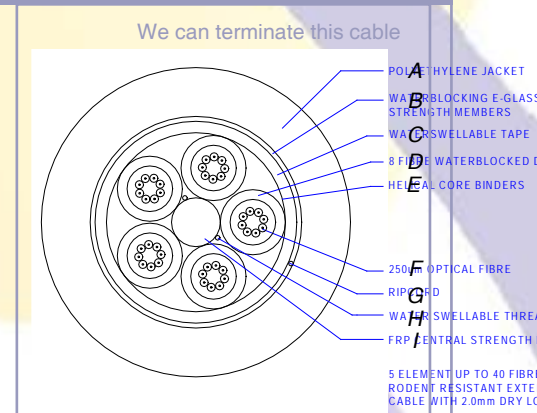
No	1	2	3	4	5
Fibre	Blue	Orange	Green	Brown	Grey

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 5 el Multi tube FTTH RR PE	5LOS1LG009**PBK

Where ** is the fibre count between 8 and 40



- A: Polyethylene Jacket
 - B: Water Blocking E-Glass Non Metallic Strength Members
 - C: Water Swellable Tape
 - D: Eight Fibre Water Blocked Dry Loose Tube
 - E: Helical Core Binders
 - F: 250µm Optical Fibre
 - G: Ripcord
 - H: Water Swellable Thread
 - I: FRP Central Strength Member
- Five element, up to 40 fibre, completely dry. Rodent resistant, external duct access cable with 2.0 mm dry loose tubes



G.657A and G.657A/B PureLight™ also available

6 Element External Completely Dry Multi Loose Tube FTTH Access and Distribution Cable

Description

48 fibre, 6 element completely dry ITU-T G.652D singlemode 250µm multi dry loose tube rodent resistant external dry core duct cables with rodent resistant E-glass strength members, and High Density Polyethylene (HDPE) jacket

The 6 element multi loose tube cable construction consists of 48, 250µm optical fibres in 8 fibre waterblocked dry loose tubes. The tubes are SZ stranded around a Fibre Reinforced Plastic (FRP) central strength member with waterswellable threads and waterswellable tape. Helically applied waterblocking E-glass non metallic strength members with ripcord and black High Density Polyethylene (HDPE) jacket.

Applications

- ▶ Ideal for external duct FTTH Access and Distribution applications
- ▶ Suitable for external applications where environmental resistance is required
- ▶ Suitable for one or both end pre-termination

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP/E-glass
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	79
Fibre count	n	72
Nominal outer diameter	mm	10.3 ± 0.4
Maximum tensile load (Short Term)	N	2700
Maximum tensile load (Long Term)	N	1400
Minimum bend radius	mm	Installed 103
Minimum bend radius	mm	Loaded 206
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Tube Identification (IEC 60304)

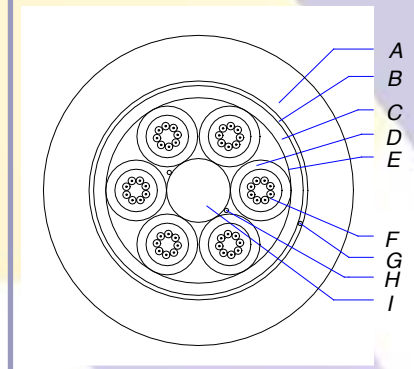
No	1	2	3	4	5	6
Tube	Blue	Orange	Green	Brown	Grey	White

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 6el Multi tube FTTH RR PE	6LOS1LG01072PBK

We can terminate this cable



- A: Polyethylene Jacket
- B: Water Blocking E-Glass Non Metallic Strength Members
- C: Water Swallowable Tape
- D: Eight Fibre Water Blocked Dry Loose Tube
- E: Helical Core Binders
- F: 250µm Optical Fibre
- G: Ripcord
- H: Water Swallowable Thread
- I: FRP Central Strength Member

Six element, up to 48 fibre, completely dry. Rodent resistant, external duct access cable with 2.0 mm dry loose tubes



G.657A and G.657A/B
PureLight™ also available

8 Element External Completely Dry Multi Loose Tube FTTH Access and Distribution Cable

Description

56 to 64 fibre, 5 element completely dry ITU-T G.652D singlemode 250µm multi dry loose tube rodent resistant external dry core duct cables with rodent resistant E-glass strength members, and High Density Polyethylene (HDPE) jacket

The 8 element multi loose tube cable construction consists of up to 56 to 64, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate. The tubes are SZ stranded around a polyethylene (PE) jacketed Fibre Reinforced Plastic (FRP) central strength member with waterswellable threads and waterswellable tape. Helically applied waterblocking E-glass non metallic strength members with ripcord and black High Density Polyethylene (HDPE) jacket.

Applications

- ▶ Ideal for external duct FTTH Access and Distribution applications
- ▶ Suitable for external applications where environmental resistance is required
- ▶ Suitable for one or both end pre-termination

Features

- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ E-glass yarn for rodent resistance
- ▶ PE jacket for environmental protection and water permeation resistance

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP/E-glass
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	95
Fibre count	n	56 & 64
Nominal outer diameter	mm	11.5 ± 0.4
Maximum tensile load (Short Term)	N	2700
Maximum tensile load (Long Term)	N	1500
Minimum bend radius	mm	Installed 115
Minimum bend radius	mm	Loaded 230
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Tube Identification (IEC 60304)

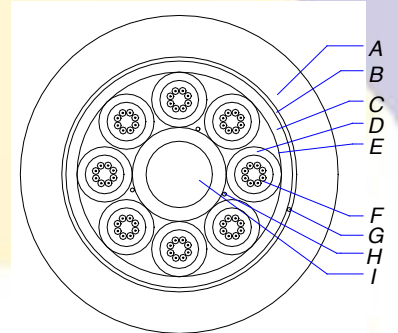
No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 5el Multi tube FTTH RR PE	8LOM1LG011**PBK

We can terminate this cable



- A: Polyethylene Jacket
- B: Water Blocking E-Glass Non Metallic Strength Members
- C: Water Swellable Tape
- D: Eight Fibre Water Blocked Dry Loose Tube
- E: Helical Core Binders
- F: 250µm Optical Fibre
- G: Ripcord
- H: Water Swellable Thread
- I: PE Jacketed FRP Central Strength Member

Eight element, up to 64 fibre, completely dry. Rodent resistant, external duct access cable with 2.0 mm dry loose tubes



G.657A and G.657A/B PureLight™ also available

10 Element External Completely Dry Multi Loose Tube FTTH Access and Distribution Cable

Description

72 to 80 fibre, 10 element completely dry ITU-T G.652D singlemode 250µm multi dry loose tube rodent resistant external dry core duct cables with rodent resistant E-glass strength members, and High Density Polyethylene (HDPE) jacket

The 10 element multi loose tube cable construction consists of 72 to 80, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate. The tubes are SZ stranded around a polyethylene (PE) jacketed Fibre Reinforced Plastic (FRP) central strength member with waterswellable threads and waterswellable tape. Helically applied waterblocking E-glass non metallic strength members with ripcord and black High Density Polyethylene (HDPE) jacket.

Applications

- ▶ Ideal for external duct FTTH Access and Distribution applications
- ▶ Suitable for external applications where environmental resistance is required
- ▶ Suitable for one or both end pre-termination

Features

- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ E-glass yarn for rodent resistance
- ▶ PE jacket for environmental protection and water permeation resistance

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP/E-glass
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	116
Fibre count	n	72, 80
Nominal outer diameter	mm	12.9 ± 0.4
Maximum tensile load (Short Term)	N	2700
Maximum tensile load (Long Term)	N	1600
Minimum bend radius	mm	Installed 130
Minimum bend radius	mm	Loaded 260
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

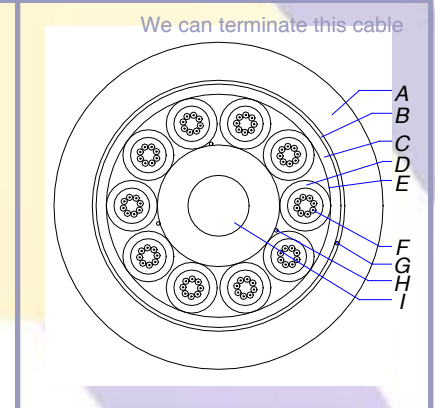
Tube Identification (IEC 60304)

No	1	2	3	4	5	6	7	8	9	10
Tube	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 10el Multi tube FTTH RR PE	10LOM1LG012**PBK



- A: Polyethylene Jacket
 B: Water Blocking E-Glass Non Metallic Strength Members
 C: Water Swellable Tape
 D: Eight Fibre Water Blocked Dry Loose Tube
 E: Helical Core Binders
 F: 250µm Optical Fibre
 G: Ripcord
 H: Water Swellable Thread
 I: PE Jacketed FRP Central Strength Member
 10 element, up to 80 fibre, completely dry. Rodent resistant, external duct access cable with 2.0 mm dry loose tubes



G.657A and G.657A/B
 PureLight™ also available

12 Element External Completely Dry Multi Loose Tube FTTH Access and Distribution Cable

Description

88 to 96 fibre, 12 element completely dry ITU-T G.652D singlemode 250µm multi dry loose tube rodent resistant external dry core duct cables with rodent resistant E-glass strength members, and High Density Polyethylene (HDPE) jacket

The 12 element multi loose tube cable construction consists of 88 to 96, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate. The tubes are SZ stranded around a polyethylene (PE) jacketed Fibre Reinforced Plastic (FRP) central strength member with waterswellable threads and waterswellable tape. Helically applied waterblocking E-glass non metallic strength members with ripcord and black High Density Polyethylene (HDPE) jacket.

Applications

- ▶ Ideal for external duct FTTH Access and Distribution applications
- ▶ Suitable for external applications where environmental resistance is required
- ▶ Suitable for one or both end pre-termination

Features

- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ E-glass yarn for rodent resistance
- ▶ PE jacket for environmental protection and water permeation resistance

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP/E-glass
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	138
Fibre count	n	88, 96
Nominal outer diameter	mm	14.2 ± 0.4
Maximum tensile load (Short Term)	N	2700
Maximum tensile load (Long Term)	N	1600
Minimum bend radius	mm	Installed 140
Minimum bend radius	mm	Loaded 280
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

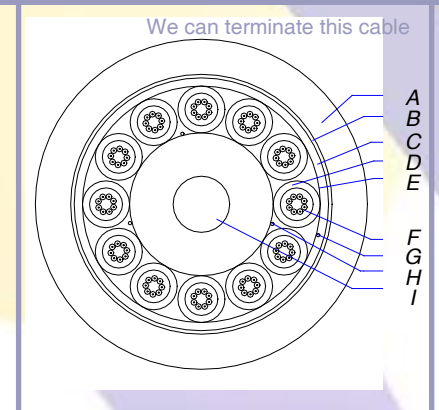
Tube Identification (IEC 60304)

No	1	2	3	4	5	6	7	8	9	10	11	12
Tube	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 12el Multi tube FTTH RR PE	12LOS1LG013**PBK



- A: Polyethylene Jacket
 B: Water Blocking E-Glass Non Metallic Strength Members
 C: Water Swellable Tape
 D: Eight Fibre Water Blocked Dry Loose Tube
 E: Helical Core Binders
 F: 250µm Optical Fibre
 G: Ripcord
 H: Water Swellable Thread
 I: PE Jacketed FRP Central Strength Member
 12 element, up to 96 fibre, completely dry.
 Rodent resistant, external duct access cable with 2.0 mm dry loose tubes



G.657A and G.657A/B
 PureLight™ also available

External Single Loose Tube Figure of 8 FTTH Metallic Aerial Drop Cable

Description

2 to 8 fibre ITU-T G.652D singlemode 250µm single loose tube external F8 aerial drop cable

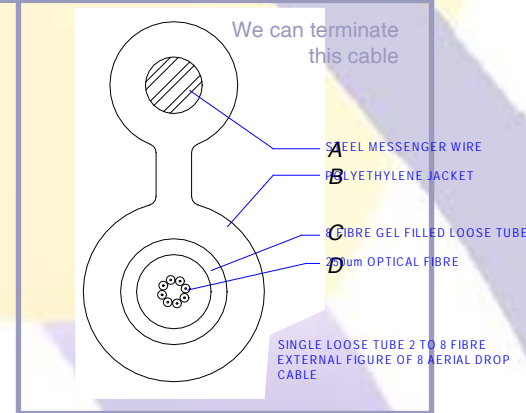
The single loose tube cable consists of 2 to 8, 250µm optical fibres in a single gel filled loose tube with a steel messenger wire strength member and PE jacket.

Applications

- ▶ Suitable for aerial cable applications up to 50m single span
- ▶ Ideal for dropping down from telegraph poles in FTTH networks
- ▶ Ideal for FTTH intra building aerial links
- ▶ Suitable for outdoor duct environments

Features

- ▶ ITU-T G.652D optical fibre
- ▶ Colour coded fibres
- ▶ Compact 250µm loose tube construction
- ▶ PE jacket for environmental protection and water permeation resistance



A: Steel Messenger Wire

B: Polyethylene Jacket

C: Eight Fibre Gel Filled Loose Tube

D: 250µm Optical Fibre

Single Loose Tube two to eight fibre external figure of eight Aerial Drop Cable

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		Steel
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-20 to 70
Nominal weight	kg/km	47
Fibre count	n	2, 4, 6, 8
Nominal outer height	mm	10.2 ±0.3
Nominal outer width	mm	5.1 ±0.3
Maximum tensile load (Short Term)	N	1000
Maximum tensile load (Long Term)	N	500
Minimum bend radius (Small Diameter)	mm	Installed 50
Minimum bend radius (Small Diameter)	mm	Loaded 100
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Product Range

Description	Part Number
ITU-T G.652D 250µm Single tube PE metallic FTTH aerial Drop	OLOS1LTD**PBK

Where ** is the fibre count between 2 and 8



G.657A and G.657A/B
PureLight™ also available

3.0 mm Round Duplex FTTH Drop Cable with Aramid Strength Members

Description

Round Duplex 3.0 mm 2 fibre ITU-T G.657A singlemode 900µm tight buffered internal cable with aramid strength members and LSZH jacket.

The Round Duplex cables consist of 2, 900µm optical fibres with longitudinally applied aramid non metallic strength members and white low smoke zero halogen (LSZH) jacket.

Applications

- ▶ FTTH horizontal drop
- ▶ Pigtails and Patchcords
- ▶ Internal inter-connect including pre-termination

Features

- ▶ Aramid strength members for ease of handling
- ▶ Robust 900µm tight buffered fibres for ease of termination
- ▶ Easy stripping
- ▶ LSZH jacket for internal use

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		Aramid
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-20 to 60
Secondary buffer diameter 900µm	µm	900 ± 50
Nominal weight	kg/km	8
Fibre count	n	2
Nominal outer diameter	mm	3.0 ±0.2
Maximum tensile load	N	Short term 250
Maximum tensile load	N	Long term 100
Minimum bend radius	mm	Installed 10D
Minimum bend radius	mm	Loaded 20D
Drum length	km	2 or 4

Optical Fibre Specifications

Please refer to fibre ITU-T G.657A fibre datasheet

Fibre Identification (IEC 60304)

No	1	2
Fibre	Blue	Orange

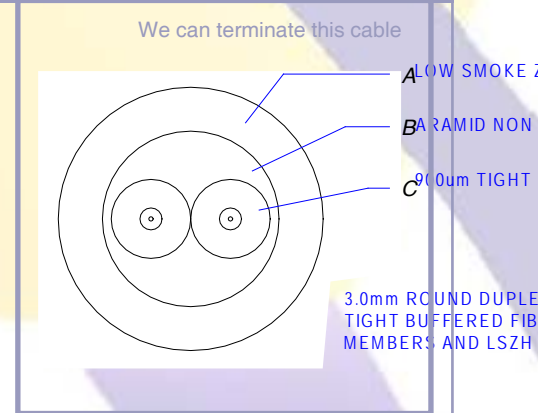
Fire Performance

Fire Test Description	Fire Test Specification
Smoke emission	IEC 61034-1 & 2
Flammability	IEC 60332-1 Flammability
Acid gas emission	IEC 60754-1 & 2

Product Range

Description	Part Number
2-Core 3.0mm ITU-T G.657A FTTH round duplex drop white Jacket 900µm	OL657A3DURLG016UWH

Other jacket colours are available



A: Low Smoke Zero Halogen Jacket
 B: Aramid Non Metallic Strength Members
 C: 900µm Tight Buffered Fibre
 3.0mm Round Duplex Cable with 900µm Tight Buffered fibres, Aramid Strength Members and LSZH Jacket



G.657A and G.657A/B PureLight™ also available

Internal Drop Dry Loose Tube Cables with Aramid Strength Members

Description

Up to 8 fibre ITU-T G.652D singlemode 250µm single dry loose tube internal duct cables

The single loose tube cables consist of 2 to 8, 250µm individually coloured optical fibres in a single waterblocked dry loose tube with helically applied aramid non metallic strength members and yellow Low Smoke Zero Halogen (LSZH) jacket with ripcord.

Applications

- ▶ Suitable for internal FTTH drop applications
- ▶ Suitable for one or both end pre terms and on site termination
- ▶ Suitable for internal riser collapsed backbone applications

Features

- ▶ ITU-T G.652D optical fibre
- ▶ Colour coded optical fibres
- ▶ Gel free loose tube construction with aramid strength members for ease of handling and termination
- ▶ Compact 250µm dry loose tube construction
- ▶ Flame retardant LSZH jacket for enhanced fire performance

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		Aramid
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-20 to 60
Nominal weight	kg/km	22
Fibre count	n	2, 4, 6, 8
Nominal outer diameter (2f to 16f)	mm	5.0 ±0.3
Maximum tensile load (Short Term)	N	500
Maximum tensile load (Long Term)	N	250
Minimum bend radius	mm	Installed 50
Minimum bend radius	mm	Loaded 100
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

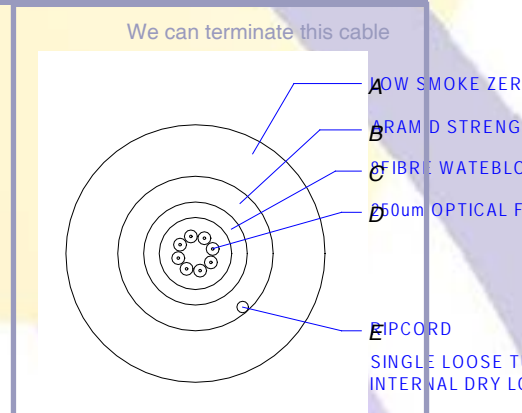
Fire Performance

Fire Test Description	Fire Test Specification
Smoke emission	IEC 61034-1 & 2
Flammability	IEC 60332-1
Acid gas emission	IEC 60754-1 & 2

Product Range

Description	Part Number
ITU-T G.652D 250µm Single dry tube drop LSZH	OS1LG016**UYE

Where ** is the fibre count between 2 and 8



A: Low Smoke Zero Halogen Jacket

B: Aramid Strength Members

C: 8 Fibre Waterblocked dry loose tube

D: 250µm Optical Fibre

E: Rip Cord

Single Loose Tube two to eight fibre internal dry loose tube cable



G.657A and G.657A/B PureLight™ also available

5 Element Internal Completely Dry Multi Loose Tube FTTH Riser Cable

Description

8 to 40 fibre, 5 element completely dry ITU-T G.652D singlemode 250µm multi loose tube rodent resistant internal FTTH riser cables with Low Smoke Zero Halogen (LSZH) jacket

The 5 element multi loose tube cable construction consists of 8 to 40, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate, SZ stranded around a Fibre Reinforced Plastic (FRP) central strength member. Yellow Low Smoke Zero Halogen (LSZH) jacket.

Applications

- ▶ Ideal for use in internal riser applications in FTTH installations
- ▶ Suitable for internal applications
- ▶ Suitable for one or both end pre-termination

Features

- ▶ SZ stranded core for easy tube breakout at each floor
- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ Reduced thickness flame retardant LSZH jacket for enhanced fire performance and easy removal to reveal the cable core.

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	39
Fibre count	n	8, 16, 24, 32, 40
Nominal outer diameter	mm	8.9 ± 0.3
Maximum tensile load (Short Term)	N	550
Maximum tensile load (Long Term)	N	230
Minimum bend radius	mm	Installed 90
Minimum bend radius	mm	Loaded 180
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

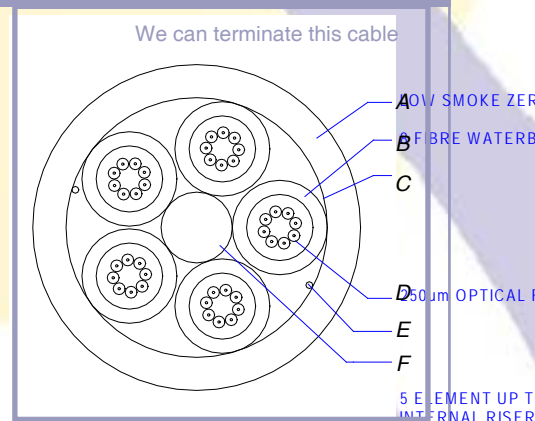
Fire Performance

Fire Test Description	Fire Test Specification
Smoke emission	IEC 61034-1 & 2
Flammability	IEC 60332-1
Acid gas emission	IEC 60754-1 & 2

Product Range

Description	Part Number
ITU-T G.652D 250µm 5el Multi tube FTTH Riser LSZH	5LOS1LG004**UYE

Other jacket colours are available



- A: Low Smoke Zero Halogen Jacket
 - B: 8 Fibre Waterblocked dry loose tube
 - C: Helical Core Binders
 - D: 250µm Optical Fibre
 - E: Rip Cord
 - F: FRP Central Strength Member
- 5 element up to 40 fibre completely dry internal riser cable with 2.0mm dry loose tubes



G.657A and G.657A/B PureLight™ also available

6 Element Internal Completely Dry Multi Loose Tube FTTH Riser Cable

Description

48 fibre, 6 element completely dry ITU-T G.652D singlemode 250µm multi loose tube rodent resistant internal FTTH riser cables with Low Smoke Zero Halogen (LSZH) jacket

The 6 element multi loose tube cable construction consists of 48, 250µm optical fibres in 8 fibre waterblocked dry loose tubes, SZ stranded around a Fibre Reinforced Plastic (FRP) central strength member. Yellow Low Smoke Zero Halogen (LSZH) jacket.

Applications

- ▶ Ideal for use in internal riser applications in FTTH installations
- ▶ Suitable for internal applications
- ▶ Suitable for one or both end pre-termination

Features

- ▶ SZ stranded core for easy tube breakout at each floor
- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ Reduced thickness flame retardant LSZH jacket for enhanced fire performance and easy removal to reveal the cable core.

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	76
Fibre count	n	48
Nominal outer diameter	mm	7.6 ± 0.3
Maximum tensile load (Short Term)	N	1350
Maximum tensile load (Long Term)	N	650
Minimum bend radius	mm	Installed 75
Minimum bend radius	mm	Loaded 150
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

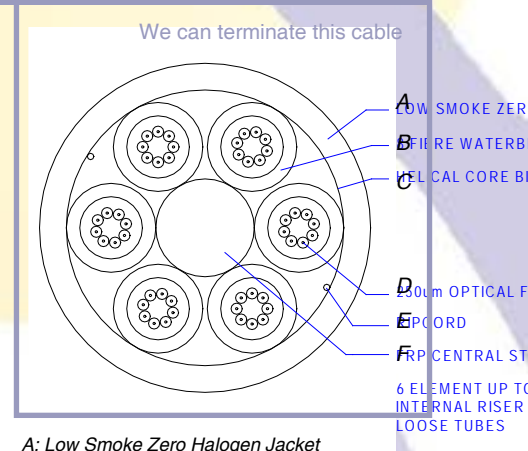
No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Fire Performance

Fire Test Description	Fire Test Specification	No	1	2	3	4	5	6
Smoke emission	IEC 61034-1 & 2	Tube	Blue	Orange	Green	Brown	Grey	White
Flammability	IEC 60332-1	Natural fillers to be used where appropriate						
Acid gas emission	IEC 60754-1 & 2							

Product Range

Description	Part Number
ITU-T G.652D 250µm 6el Multi tube FTTH Riser LSZH	6LOS1LG00548UYE



A: Low Smoke Zero Halogen Jacket

B: 8 Fibre Waterblocked dry loose tube

C: Helical Core Binders

D: 250µm Optical Fibre

E: Rip Cord

F: FRP Central Strength Member

6 element up to 48 fibre completely dry internal riser cable with 2.0mm dry loose tubes



G.657A and G.657A/B
PureLight™ also available

8 Element Internal Completely Dry Multi Loose Tube FTTH Riser Cable

Description

56 to 64 fibre, 8 element completely dry ITU-T G.652D singlemode 250µm multi loose tube rodent resistant internal FTTH riser cables with Low Smoke Zero Halogen (LSZH) jacket

The 8 element multi loose tube cable construction consists of 56 to 64, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate, SZ stranded around a jacketed Fibre Reinforced Plastic (FRP) central strength member. Yellow Low Smoke Zero Halogen (LSZH) jacket.

Applications

- ▶ Ideal for use in internal riser applications in FTTH installations
- ▶ Suitable for internal applications
- ▶ Suitable for one or both end pre-termination

Features

- ▶ SZ stranded core for easy tube breakout at each floor
- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ Reduced thickness flame retardant LSZH jacket for enhanced fire performance and easy removal to reveal the cable core.

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	66
Fibre count	n	56, 64
Nominal outer diameter	mm	8.8 ± 0.3
Maximum tensile load (Short Term)	N	1800
Maximum tensile load (Long Term)	N	1000
Minimum bend radius	mm	Installed 90
Minimum bend radius	mm	Loaded 180
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Fire Performance

Fire Test Description	Fire Test Specification
Smoke emission	IEC 61034-1 & 2
Flammability	IEC 60332-1
Acid gas emission	IEC 60754-1 & 2

Tube Identification (IEC 60304)

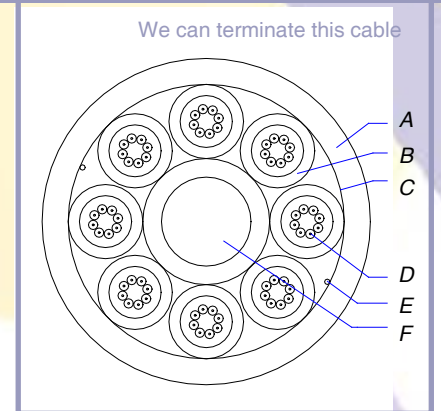
No	1	2	3	4	5	6
Tube	Blue	Orange	Green	Brown	Grey	White
No	7	8				
Tube	Red	Black				

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 5el Multi tube FTTH Riser LSZH	8LOS1LG006**UYE

Where ** is the fibre count between 56 and 64



- A: Low Smoke Zero Halogen Jacket
 - B: 8 Fibre Waterblocked dry loose tube
 - C: Helical Core Binders
 - D: 250µm Optical Fibre
 - E: Rip Cord
 - F: LSZH Jacketed FRP Central Strength Member
- 8 element up to 64 fibre completely dry internal riser cable with 2.0mm dry loose tubes



G.657A and G.657A/B PureLight™ also available

10 Element Internal Completely Dry Multi Loose Tube FTTH Riser Cable

Description

72 to 80 fibre, 10 element completely dry ITU-T G.652D singlemode 250µm multi loose tube rodent resistant internal FTTH riser cables with Low Smoke Zero Halogen (LSZH) jacket

The 10 element multi loose tube cable construction consists of 72 to 80, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate, SZ stranded around a jacketed Fibre Reinforced Plastic (FRP) central strength member. Yellow Low Smoke Zero Halogen (LSZH) jacket

Applications

- ▶ Ideal for use in internal riser applications in FTTH installations
- ▶ Suitable for internal applications
- ▶ Suitable for one or both end pre-termination

Features

- ▶ SZ stranded core for easy tube breakout at each floor
- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ Reduced thickness flame retardant LSZH jacket for enhanced fire performance and easy removal to reveal the cable core.

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	90
Fibre count	n	72, 80
Nominal outer diameter	mm	10.2 ± 0.3
Maximum tensile load (Short Term)	N	2100
Maximum tensile load (Long Term) ³	N	1300
Minimum bend radius	mm	Installed 100
Minimum bend radius	mm	Loaded 200
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Fire Performance

Fire Test Description	Fire Test Specification	No	1	2	3	4	5	6
Smoke emission	IEC 61034-1 & 2	Tube	Blue	Orange	Green	Brown	Grey	White
Flammability	IEC 60332-1	Tube	7	8	9	10		
Acid gas emission	IEC 60754-1 & 2	Tube	Red	Black	Yellow	Violet		

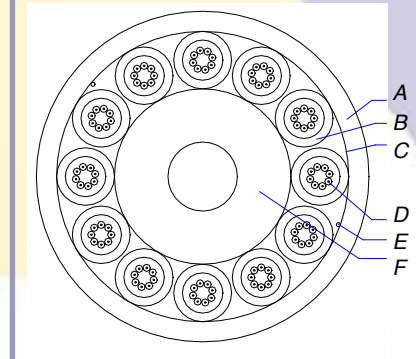
Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 10el Multi tube FTTH Riser LSZH	10LOS1LG007**UYE

Where ** is the fibre count between 72 and 80

We can terminate this cable



A: Low Smoke Zero Halogen Jacket

B: 8 Fibre Waterblocked dry loose tube

C: Helical Core Binders

D: 250µm Optical Fibre

E: Rip Cord

F: LSZH Jacketed FRP Central Strength Member

12 element up to 96 fibre completely dry internal riser cable with 2.0mm dry loose tubes



G.657A and G.657A/B
PureLight™ also available

12 Element Internal Completely Dry Multi Loose Tube FTTH Riser Cable

Description

88 to 96 fibre, 12 element completely dry ITU-T G.652D singlemode 250µm multi loose tube rodent resistant internal FTTH riser cables with Low Smoke Zero Halogen (LSZH) jacket. The 12 element multi loose tube cable construction consists of 88 to 96, 250µm optical fibres in 8 fibre waterblocked dry loose tubes and fillers where appropriate, SZ stranded around a jacketed Fibre Reinforced Plastic (FRP) central strength member. Yellow Low Smoke Zero Halogen (LSZH) jacket.

Applications

- ▶ Ideal for use in internal riser applications in FTTH installations
- ▶ Suitable for internal applications
- ▶ Suitable for one or both end pre-termination

Features

- ▶ SZ stranded core for easy tube breakout at each floor
- ▶ Colour coded fibres
- ▶ Compact 250µm dry loose tube construction
- ▶ Reduced thickness flame retardant LSZH jacket for enhanced fire performance and easy removal to reveal the cable core.

Cable Specifications (IEC 60794)

Parameter	Unit	Value
Crush	N/100mm	1000
Strength member		FRP
Storage temperature	°C	-20 to 60
Installation temperature	°C	-20 to 60
Operating temperature	°C	-40 to 70
Nominal weight	kg/km	117
Fibre count	n	88 & 96
Nominal outer diameter	mm	11.5 ± 0.3
Maximum tensile load (Short Term)	N	2300
Maximum tensile load (Long Term)	N	1500
Minimum bend radius	mm	Installed 115
Minimum bend radius	mm	Loaded 230
Drum length	km	2 or 4

Optical Fibre Specifications (IEC 60793)

Please refer to fibre ITU-T G.652D fibre datasheet

Fibre Identification (IEC 60304)

No	1	2	3	4	5	6	7	8
Fibre	Blue	Orange	Green	Brown	Grey	White	Red	Black

Fire Performance

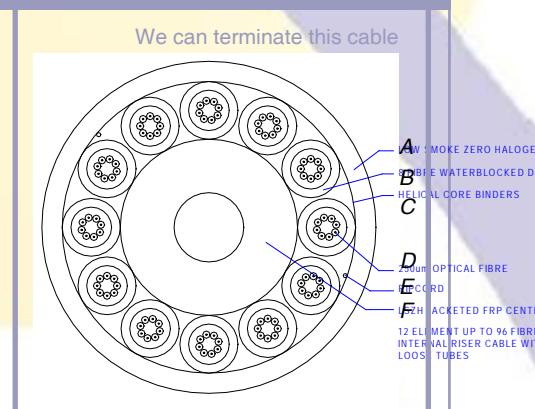
Fire Test Description	Fire Test Specification	Tube Identification (IEC 60304)						
		No	1	2	3	4	5	6
Smoke emission	IEC 61034-1 & 2	Tube	Blue	Orange	Green	Brown	Grey	White
Flammability	IEC 60332-1	No	7	8	9	10	11	12
Acid gas emission	IEC 60754-1 & 2	Tube	Red	Black	Yellow	Violet	Pink	Aqua

Natural fillers to be used where appropriate

Product Range

Description	Part Number
ITU-T G.652D 250µm 12el Multi tube FTTH Riser LSZH	12LOS1LG008**UYE

Where ** is the fibre count between 56 and 64



- A: Low Smoke Zero Halogen Jacket
 - B: 8 Fibre Waterblocked dry loose tube
 - C: Helical Core Binders
 - D: 250µm Optical Fibre
 - E: Rip Cord
 - F: LSZH Jacketed FRP Central Strength Member
- 12 element up to 96 fibre completely dry internal riser cable with 2.0mm dry loose tubes



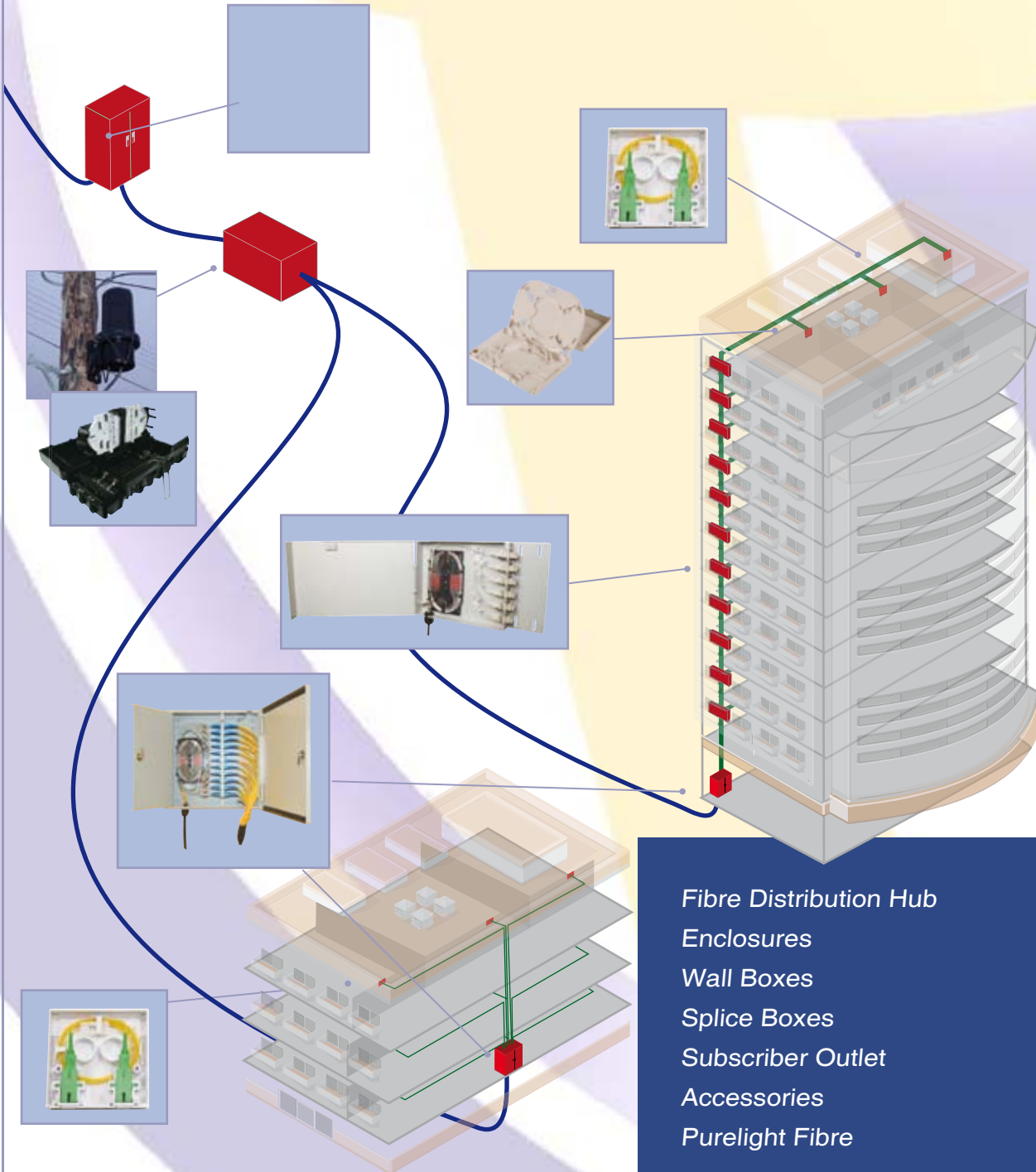
G.657A and G.657A/B PureLight™ also available

FTTH OSP/Fibre Management

Cmatic offers an array of OSP (outside plant) and CP (customer premise) products for a range of applications including FTTx, core, metro and long haul applications.

The Cmatic range of environmentally sealed enclosures, wall boxes,

cabinets, distributions hubs and home outlets can be delivered as an off the shelf solution compatible with all cable types for both internal and external applications. In parallel with this and to suit the dynamics of a continuously changing market, bespoke products can be fabricated to specific customer requirements.



Fibre Distribution Hub	19
Enclosures	20
Wall Boxes	27
Splice Boxes	38
Subscriber Outlet	31
Accessories	32
Purelight Fibre	33

Fibre Distribution Hub

Fibre Distribution Hub

A range of Fibre Distribution Hubs (FDH) has been designed specifically for use within Fibre To The Home (FTTH) Passive Optical Networks (PON). The hubs are designed for use in outside plant applications for the housing of passive optical splitters in a variety of sizes with output fibre capacities up to 1152f. Traditional optical cables are normally used as input cable but a variety of configurations will be available to allow output cables to be used for the distribution / drop parts of an FTTH network.

Applications

- ▶ PON
- ▶ Telecommunications networks
- ▶ CATV networks
- ▶ FTTH
- ▶ Fibre communication systems

Features

- ▶ Pedestal or pole mount
- ▶ Designed for operation in a variety of climatic conditions
- ▶ Splitter modules are available in either 1:16 or 1:32 configurations
- ▶ Unassigned pigtails are easily stored and managed in a convenient parking bay
- ▶ Cable management ensures the minimum bend radius for optical fibres is not exceeded



Connectivity Specifications

Parameter	Detail
Cabinet Lock	3 point lock as standard or others available on request
Connector Type	SC/APC or LC/APC
Cabinet capacity	Various configurations are available up to 876f
Cabinet Testing	Performance to meet Telcordia GR-449 CORE
Splitter modules	Supplied as 1x 32 or 1 x16 modules as per table below
Splitters	Fused or Planar supplied as per table below
Splitter Testing	Performance to meet Telcordia GR1221 and GR1209

* Values given are maximum, please contact FibreFab for typical and minimum values.



Splitter Specifications

	1 x32 Fused	1 x 32 Planar	1 x 16 Fused	1 x 16 Planar
*IL Max. (dB)	17.8	17.0	14.3	13.9
*BR Max. (dB)	50	50	50	50
Height (mm)	100	100	100	100
Width (mm)	160	160	160	160
Depth (mm)	15	30	15	30
Pigtail Length (m)	1.45	1.45	1.45	1.45

Cabinet Specifications

Parameter	Detail
Cabinet Dimensions (mm)	Pole Mounted: (h) 720 x (w) 650 x (d) 535 Pedestal Mounted: (h) 970x (w) 650 x (d) 535
Weight fully equipped	Pole mounted: 30Kg Pedestal Mounted: 32Kg

Dome Enclosure from 01 - 96 Fibre Capacity

Dome Enclosure from 01 - 96 Fibre Capacity

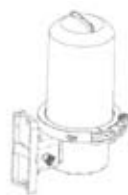
This unique enclosure is quick and easy to install and requires no specialist tooling. Included with the enclosure is the universal fixing bracket for overhead post/pole and wall installations as well as the specially designed plug to utilise the cable bearer brackets in underground chambers.

Materials

Dome, adapter plug, universal fixing bracket and fixing pins -environmentally friendly, UV resistant polypropylene collar clamping assembly -glass filled nylon blend base -polycarbonate / ABS blend.



Vertical Mounting Position
(Mounted To Cable Bearer)



Vertical Mounting Position
(Wall/Wooden Pole)



Horizontal Mounting Position
(Wall/Wooden Pole)



Product Range

Description		Part Number
Small Dome Enclosure - 1 to 24 Splice Connections		
With	No. of Splice Connections	
0 Splice trays	0	Contact Sales
1 Splice tray	12	Contact Sales
2 Splice trays	24	Contact Sales
3 Splice trays	36	Contact Sales
4 Splice trays	48	Contact Sales
5 Splice trays	60	Contact Sales
6 Splice trays	72	Contact Sales
7 Splice trays	84	Contact Sales
8 Splice trays	96	Contact Sales

Dome Enclosure from 01 - 96 Fibre Capacity

Dome Enclosure from 01 - 96 Fibre Capacity

OPTB604A protects fibre optic splice while providing fast and easy no-cost, re-entry. It can be installed on aerial, in manholes, ducts and mounted on poles. The Closure provides reliable sealing performance, and fibre splicing point protected in a ribbed polypropylene dome that has high mechanical and environmental features. With its six entry ports, the closure is applicable to in-line or mid-span branching method. With OPTB604A, you can improve your network system to the higher level.

Applications

- ▶ Telecommunications
- ▶ CATV networks
- ▶ Data transmission and Industrial control
- ▶ Video transmission and security

Specifications

Parameter	Detail
Size (mm) LxWxH	174 x 208 x 522
Weight (kg)	2
Inlet ports	6
Cable Dia.(mm)	8 ~ 24
No. of Splice Tray	4
Tray Capacity	12F (up to 24F)
Splice Capacity	48F (up to 96F)
Splice Method	Fusion, Mechanical, Connector
Splice Protector	Heat Shrinkable Sleeve, Mechanical Splicer
Tension Member	Galvanized Steel Wire, FRP, Wire
Water proof	IP 68 in accordance with Telecordia International Standard

Product Range

Description	Part Number
Dome 24 Splice, 1 tray Closure	OPTB604A-1
Dome 48 Splice, 2 trays Closure	OPTB604A-2
Dome 72 Splice, 3 trays Closure	OPTB604A-3
Dome 96 Splice, 4 trays Closure	OPTB604A-4



Hinged Inline Enclosure 01 - 60 Fibre Capacity

Hinged Fibre Splice Enclosure 01 - 60 Fibre Capacity

Features

- ▶ Opens via left hand hinge
- ▶ Multi cable entry points
- ▶ Integrated pressure valve
- ▶ Integrated earth point
- ▶ Holds up to 60 single fibres
- ▶ Integrated fibre management
- ▶ Mechanically sealed (compression)

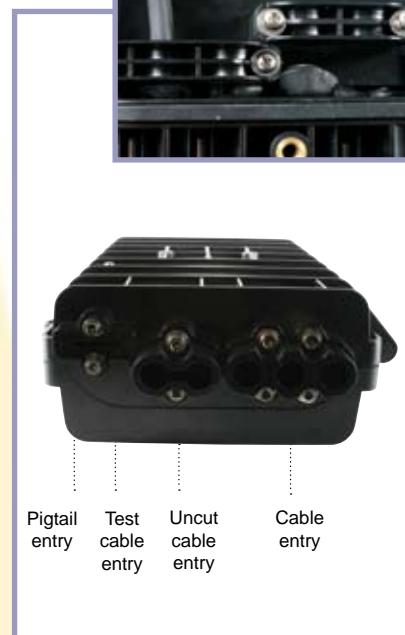
Benefits

- ▶ Multi functional splicing options
- ▶ Includes all splice protection
- ▶ Includes wall mounting bracket and fixings
- ▶ Can be pole mounted (optional extra)
- ▶ Can be aerial mounted (optional extra)



Specifications

Parameter	Detail
Maximum single fibre count	60
Maximum fibres per tray	12
Maximum number of trays	5
Number of cable entry points	3
Suitable for cable diameters	8mm to 15mm Ø
Number of pigtail outlets	4
Suitable for pigtail diameter	2mm Ø
Number of uncut cable entry	1
Suitable for uncut cable diameter	8mm to 15mm Ø
Number of test outlets	1
Suitable for test cable diameter	6mm Ø
Sealing rating	IP68
Sealing method for all entry and exit	Mechanical (compression)
Height	300mm
Width	220mm
Depth	100mm
Weight	2.4kgs to 2.7kgs
Colour	Black
Material	ABS
RoHS compliant	Yes
Optimal operating temperature	-40 °C to +65 °C



Product Range

Description	Part Number
Hinged Fibre Splice Enclosure 12 splice	DOME05
Hinged Fibre Splice Enclosure 24 splice	DOME06
Hinged Fibre Splice Enclosure 36 splice	DOME07
Hinged Fibre Splice Enclosure 48 splice	DOME08
Hinged Fibre Splice Enclosure 60 splice	DOME09
Optional Extras	
Pole Mounting Kit	POLEKIT
Aerial Mounting Kit	AERIALKIT



Inline Enclosure 01 - 48 Fibre Capacity

Inline Splice Enclosure 01 - 48 Fibre Capacity

OPTR402 protects fibre optic splicing point in various installation conditions such as wires, manholes, wall, pole, ducts and direct buried. It is specially designed for FTTH network and applicable to multi branching installation complying with the requirements in each point of network.

The OPTR402 provides easy and reliable installation and high mechanical strength against any environmental conditions. With OPTR402, you can improve your network system to the higher level.

Applications

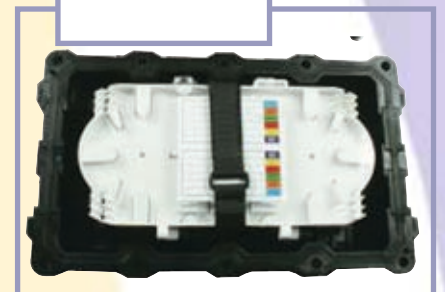
- ▶ Telecommunications
- ▶ CATV networks
- ▶ Aerial installation
- ▶ Data transmission and Industrial control
- ▶ Video transmission and security

Specifications

Parameter	Detail
Size (mm) LxWxH	270 x 160 x 80
Weight (kg)	2
Inlet ports	4
Cable Dia.(mm)	3 ~ 10
No. of Splice Tray	2
Tray Capacity	12F (up to 24F)
Splice Capacity	24F (up to 48F)
Splice Method	Fusion, Mechanical, Connector
Splice Protector	Heat Shrinkable Sleeve, Mechanical Splicer
Tension Member	Galvanized Steel Wire, FRP, Wire
Water proof	IP 67 in accordance with Telecordia International Standard

Product Range

Description	Part Number
Inline Aerial 12 Splice Closure	OPTR402-1
Inline Aerial 24 Splice Closure	OPTR402-2
Inline Aerial 48 Splice Closure	OPTR402-3



Inline Enclosure 01 - 192 Fibre Capacity

Inline Splice Enclosure 01 - 192 Fibre Capacity

Terms and Definitions

- ▶ SD-Type : Standard type splice closure with a total of 1 Mid-Plate
- ▶ DD-Type : Standard type splice closure with a total of 2 Mid-Plate

Applications

- ▶ SS-Type : Standard type splice closure without Mid-Plate
- ▶ SD-Type : Standard type splice closure with a total of 1 Mid-Plate
- ▶ DD-Type : Standard type splice closure with a total of 2 Mid-Plate
- ▶ Telecommunications
- ▶ CatV Networks
- ▶ Data Transmission
- ▶ Video Transmission and Security
- ▶ Aerial / Duct Installations

Specifications

Parameter	OPTB403A-SS	OPTB403A-SD	OPTB403A-DD
Size (mm) LxWxH	435 x 205 x 113	435 x 205 x 167	435 x 205 x 221
Weight (kg)	2.8	3.8	4.8
Main Entry Ports	4 Ports/Closure	8 Ports/Closure	12 Ports/Closure
Sub Entry Ports	4 Ports/Main Entry Port	4 Ports/Main Entry Port	4 Ports/Main Entry Port
Cable Dia.(mm)	6 ~ 20	6 ~ 20	6 ~ 20
No. of Splice Tray	4	6	8
Tray Capacity	24F (up to 48F)	24F (up to 48F)	24F (up to 48F)
Splice Capacity	96F (up to 192F)	144F (up to 288F)	192F (up to 384F)
Splice Method	Fusion, Mechanical, Connector		
Splice Protector	Heat Shrinkable Sleeve, Mechanical Splicer		
Tension Member	Galvanized Steel Wire, FRP		

Product Range

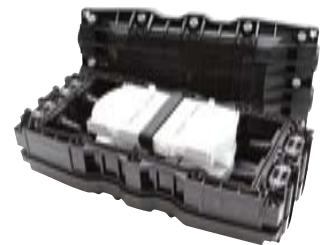
Description	Part Number
Inline 24 Splice, 1 Tray, 2 + 2 entry port closures	OPTB403A-SS-1
Inline 48 Splice, 2 Tray, 2 + 2 entry port closures	OPTB403A-SS-2
Inline 72 Splice, 3 Tray, 2 + 2 entry port closures	OPTB403A-SS-3
Inline 96 Splice, 4 Tray, 2 + 2 entry port closures	OPTB403A-SS-4
Inline 120 Splice, 5 Tray, 4 + 4 entry port closures	OPTB403A-SD-1
Inline 144 Splice, 6 Tray, 4 + 4 entry port closures	OPTB403A-SD-2
Inline 168 Splice, 7 Tray, 6 + 6 entry port closures	OPTB403A-DD-1
Inline 192 Splice, 8 Tray, 6 + 6 entry port closures	OPTB403A-DD-2



OPTB403A-SD



OPTB403A-DD



OPTB403A-SD



OPTB403A-SD

Inline Enclosure 01 - 144 Fibre Capacity

Inline Splice Enclosure 01 - 144 Fibre Capacity

OPTB603 protects fibre optic splices in various installations conditions such as aerials. It is designed for aerial-line applications with a catch clips that will assist the sealing performance of the unit.

Applications

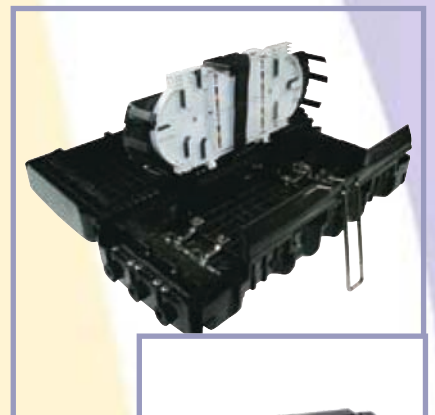
- ▶ Ergonomic design
- ▶ One-Touch catch clips to assist safety and reduce insertion time
- ▶ Double gasket construction for improved sealing performance

Specifications

Parameter	OPTB603A	OPTB603B
Size (mm) LxWxH	525 X 203 X 154	420 X 180 X 100
Weight (kg)	5	2.5
Inlet ports	6	6
Cable Dia.(mm)	8 ~ 22	3 ~ 22
No. of Splice Tray	Max. 6	3
Tray Capacity	24F (Max. 48F)	24F (Max. 48F)
Splice Capacity	144F (Max. 288F)	72F (Max. 144F)
Splice Method	Fusion, Mechanical	
Splice Protector	Heat Shrinkable Sleeve, Mechanical Splicer	
Tension Member	Galvanized steel wire, FRP, Wire	



OPTB603A



OPTB603B



Product Range

Description	Part Number
Splice Enclosure up to 288 splices	OPTB603A
Splice Enclosure up to 144 splices	OPTB603B

Inline Enclosure 01 - 72 Fibre Capacity

Inline Splice Enclosure 01 - 72 Fibre Capacity

OPTCD603 protects fibre optic splicing point in various installation conditions such as wires, manholes, wall, pole, ducts and direct buried. It is specially designed for FTTH network and applicable to multi branching installation complying with the requirements in each point of network.

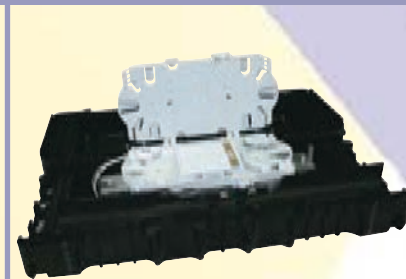
The OPTCD603 provides easy and reliable installation and high mechanical strength against any environmental conditions. With OPTCD603, you can improve your network system to the higher level.

Applications

- ▶ Telecommunications
- ▶ CatV Networks
- ▶ FTTx Networks
- ▶ Data Transmissions
- ▶ Aerial / Duct Installations

Specifications

Parameter	OPTB603A
Size (mm) LxWxH	420 x 180 x 100
Weight (kg)	2.5
Inlet ports	6
Cable Dia.(mm)	Ø3 ~ Ø20
No. of Splice Tray	3
Tray Capacity	24C (Max.48C)
Splice Capacity	72C (Max.144C)
Splice Method	Fusion, Mechanical, Connector
Splice Protector	Heat Shrinkable Sleeve, Mechanical Splicer
Tension Member	Galvanized Steel Wire, FRP, Wire



OPTCD603-X



OPTCD603-X



Product Range

Description	Part Number
Inline Quick Release Aerial 24 Splice Closure	OPTCD603-1
Inline Quick Release Aerial 48 Splice Closure	OPTCD603-2
Inline Quick Release Aerial 72 Splice Closure	OPTCD603-3

Wall Boxes

Single & Double Door Lockable Wall Boxes

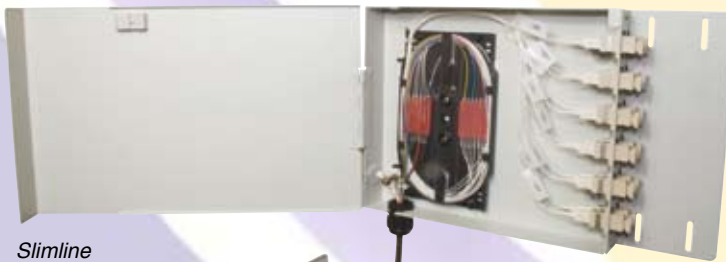
Cmatic wall boxes are designed for both internal and external use. The Cmatic range of wall boxes are versatile and configured to house patching, splicing and splitting for up to 192 subscribers (LC connectors). Wall boxes can be configured to suit customer specific IP ratings.



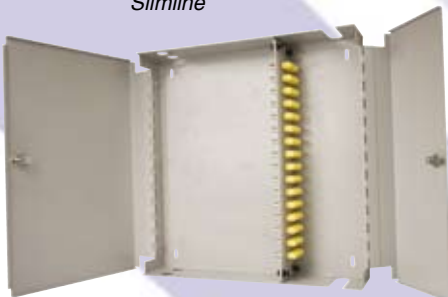
Double door



Single door



Slimline



Double door



Single door



Bend radius & cable entry left



Bend radius & cable exit right



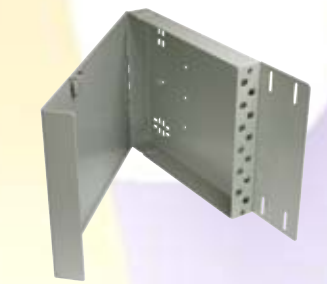
Secure lock



Plan view



Slimline Closed



Slimline Unloaded

For more information ABOUT the Cmatic range of Wall Boxes, please contact our sales team.

External Customer Splice Box

Termination Box for External Use

The Cmatic external termination box is designed for use on the external wall of residential or small business premises. The unit houses a single splice tray and allows fibres from externally fed cables (Blown Fibre or conventional), to be spliced to pigtails for connection to the optical network unit. Pigtail fibres or patchcords are routed through the external wall fabric via a rear entry port and are protected by 25mm diameter conduit. The unit can also be used as a transition point between internal and external cable.

Features

- ▶ Compact wall mounted unit typically used for residential and small business premises
- ▶ Removable cover fitted with re-enterable seal. Water ingress protection to IP66
- ▶ Tamper-proof cover security screws available as an option (refer to optional items)
- ▶ Unit manufactured from UV resistant material
- ▶ Standard kit supplied complete with all components necessary to splice an external cable to four pigtails. For applications where 12 fibres are to be spliced, extra splice protectors will be required
- ▶ Rear cable entry port allows pigtails or patchcords to enter the customer premises
- ▶ All fibres are positively managed to 30mm minimum bend radius
- ▶ Cable up to 13mm in diameter can be accommodated with a cable gland
- ▶ Cable interstices can be sealed against water/gas ingress at the entry port if required
- ▶ Compatible with Blown Fibre products
- ▶ Sealed to remain IP rated
- ▶ Easy cable access

Specifications

Parameter	Unit	Value
Number of splice trays		1
Maximum fibre capacity		12
Maximum cable diameter	mm	18
Required space envelope	mm	(W) 220 X (H) 150 X (D) 50
Operating temperature	°C	20 to 50

Materials

Material:	Unit	Detail
Wall box		FR ABS dark grey
Splice tray		FR ABS light grey RAL 7035

Testing

Parameter	Value
Optical	Tested 1310nm, 1550nm, 1625nm
Dry heat	BS EN 60068-2-2 Test Bb
Damp heat	IEC 60068-2-3: 1969
Change of temperature	IEC 60068-2-14: 1984
Vibration	IEC 600068-2-6:1995
Shock	IEC 60068-2-27:1987
IP rating	66
Packing dimensions (mm)	(W) 230 X (H) 160 X (D) 60
Packed weight (kg)	0.55
Net weight (kg)	0.50

Product Range

Description	Part Number
2 fibre SC-SC/A	Contact Sales
4 fibre SC-SC/A	Contact Sales
8 fibre SC-SC/A	Contact Sales
12 fibre SC-SC/A	Contact Sales



CSB05



CSB05

Compact Termination Box

Compact Termination Box

The Cmatic compact termination box is designed for use in residential and business applications for the termination of up to four fibres. The wall box enables the installation of either a single Sirocco Blown Tube cable using up to a 4 fibre blown unit or two 2 fibre ruggedised cables to be spliced to four SC pigtails (PC or APC), which connect to adapters at the base of the unit. The unit can be quickly installed within an office, house or communication room environment.

Features

- ▶ Ergonomic design
- ▶ Ability to allow cables to enter from rear or bottom of the unit
- ▶ All fibres are positively managed to maintain a 30mm minimum bend radius
- ▶ Optional Removable rear entry cable management
- ▶ Flip tray to allow access to connectorised tails and cable entry
- ▶ Compact, low profile, wall mounted unit used for small and large business premises
- ▶ Removable cover for easy access
- ▶ Tamper-proof cover security screws available as an option
- ▶ Unit manufactured from fire resistant UL94-V0 rated material
- ▶ Patchcords exit unit on bottom face and are protected by two protection covers
- ▶ Standard colour white. Other colours available on request



CSB06



CSB06

Specifications

Parameter	Unit	Value
Number of splice trays		1
Maximum fibre capacity		4
Maximum cable diameter	mm	10
Maximum customer feeds		4 Patchcords
Required space envelope	mm	(L) 80 X (W) 120 X (D) 25
Operating temperature	°C	20 to 50

Materials

Material:	Unit	Detail
Cap		FR high impact polystyrene
Base		FR high impact polystyrene
Splitter trays		FR high impact polystyrene

Testing

Parameter	Value
Optical	Tested 1310nm, 1550nm, 1625nm
Dry heat	BS EN 60068-2-2 Test Bb
Damp heat	IEC 60068-2-3: 1969
Change of temperature	IEC 60068-2-14: 1984
Vibration	IEC 60068-2-6:1995
Shock	IEC 60068-2-27:1987
IP rating	(W) 230 X (H) 160 X (D) 60
Packing dimensions (mm)	0.55
Packed weight (kg)	0.50
Net weight (kg)	0.50

Product Range

Description	Part Number
2 fibre SC-SC/A	Contact Sales
4 fibre SC-SC/A	Contact Sales

Internal Customer Splice Box

Termination Box for Internal Use

The Cmatic internal termination box is designed for use in residential, small and large businesses premises. The unit houses a single splice tray and allows fibres from internal or external cables to be spliced to pigtails for connection to the optical network unit. The unit can be quickly installed within a home, office or communication room environment. Internal or external cable can enter the unit from the bottom of the box or through the wall.

Features

- ▶ Compact wall mounted unit used for residential, small and large business premises
- ▶ Removable cover for easy access
- ▶ Tamper-proof cover security screws available as an option (refer to optional items)
- ▶ Unit manufactured from UL94-V0 rated material
- ▶ Tray cover provides circuit protection and contains fibre ID label
- ▶ Single hinged splice tray enables access for working.
- ▶ Pigtails exit from the bottom of the unit
- ▶ Up to 12 SC type pigtails and adapters can be accommodated
- ▶ All fibre are positively bend managed to a 30mm minimum bend radius
- ▶ Easy cable entry points
- ▶ Optional resin pack allows box to be sealed against water/gas ingress
- ▶ Compatible with Blown Fibre Products
- ▶ Sealed to remain IP rated

Specifications

Parameter	Unit	Value
Number of splice trays		1
Maximum fibre capacity		12
Maximum cable diameter	mm	18
Required space envelope	mm	(W) 220 X (H) 150 X (D) 50
Operating temperature	°C	20 to 50

Materials

Material:	Unit	Detail
Wall box		FR ABS light grey RAL 7035
Splice tray		FR ABS light grey RAL 7035

Testing

Parameter	Value
Optical	Tested 1310nm, 1550nm, 1625nm
Dry heat	BS EN 60068-2-2 Test Bb
Damp heat	IEC 60068-2-3: 1969
Change of temperature	IEC 60068-2-14: 1984
Vibration	IEC 60068-2-6:1995
Shock	IEC 60068-2-27:1987
IP rating	45
Packing dimensions (mm)	(W) 230 X (H) 160 X (D) 60
Packed weight (kg)	0.55
Net weight (kg)	0.50

Product Range

Description	Part Number
2 fibre SC-SC/A	Contact Sales
4 fibre SC-SC/A	Contact Sales
8 fibre SC-SC/A	Contact Sales
12 fibre SC-SC/A	Contact Sales



CSB04



CSB04

FTTH Subscriber Outlet

Fibre To The Home Subscriber Outlet

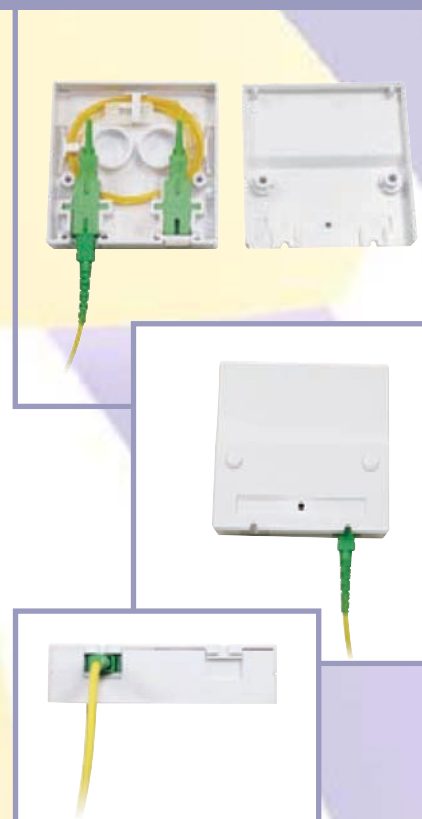
The Cmatic internal customer outlet box is designed for use inside the home. The operator has the choice of using the box unloaded or equipped with one or two adapters, the box is designed with an integrated shutters to apply with safety standards.

Features

- ▶ Multi cable entry points
- ▶ Integrated heatshrink splice holder
- ▶ Holds up to 4 single Fibres
- ▶ Integrated fibre management
- ▶ Integrated Shutter
- ▶ Integrated shutter protects against laser exposure and dust
- ▶ Pigtailed exit from the bottom of the unit

Specifications

Parameter	Value
Maximum Single Fibre Count	4
Maximum Number of heat splice	4
Number of shuttered outlets	2
Number of cable entry points	8
Dimension (mm)	(W) 86 X (H) 86 X (D) 25
Colour	White
Material	ABS
RoHS Compliant	Yes



Product Range

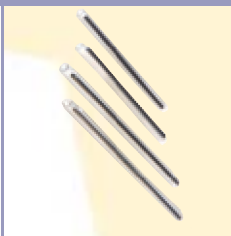
Description	Part Number
FTTH User outlet unloaded	CSB07
Splice Enclosure up to 144 splices	Contact Sales
2 Fibre SC-SC/A	Contact Sales

Accessories

Optional Termination Box Accessories

Splice Protectors

Optic splice protectors are used to protect the fibre splice. They are 2.4mm in diameter, and 45mm and 60mm in length. Only needed for applications where more than 4 splices are required.



Security Screw Kit

Provides secure, restricted access to prevent unauthorised entry. A special tool is required to gain access to the box.



Sealant Kit

A kit containing a unique polyurethane sealant used for sealing the cable interstices within the unit. The sealant is dispensed from a hermetically sealed 170ml coaxial cartridge system, once mixed through the mixing nozzle and applied the sealant is an inert material.



Gas Seal Connector

Used for sealing a Blown Fibre tube. The connector simply fits over the tube providing a gas tight seal.



Customer Lead In Unit (CLI)

Used to guide the input fibre cable through the wall into the internal/external Termination Box.



Product Range

Description	Part Number
Splice Protectors	Contact Sales
Security Screw Kit	Contact Sales
Sealant Kit	Contact Sales
Gas Seal Connector	Contact Sales
Customer Lead In Unit	Contact Sales

Purelight Fibre

G657A and G657 A/B fibre

Advancements in broadband access technologies have led to the deployment of singlemode optical fibres in high capacity all fibre, Fibre To The Home (FTTH) and (FTTx) networks.

To enable all optical FTTx systems utilizing last link optical drop cables, singlemode optical fibres with excellent optical performance under severe bend conditions have been developed. It is also essential that any low bend sensitivity fibres do not have compromised reliability and product lifetimes compared with legacy ITU-T G.652D fibres. These reduced bend sensitivity fibres are the ITU-T G.657 product range.

The ITU-T G.657 fibres which are effective under severe bend conditions have the same transmission properties as ITU-T G.652D fibres, and are effective in the O, E, S, C & L transmission bands in the wavelength range 1280 nm to 1625nm. The ITU-T G.657 fibres are characterised not only by enhanced bend performance anywhere within a network but also improved geometrical characteristics.

Cmatic have introduced The PureLight ITU-T G.657A and A/B range of optical fibres with significantly reduced installed bend radii coupled with enhanced optical and mechanical performance within operational networks. Cmatic Purelight fibres are fully compatible with standard ITU-T G.652D optical fibres.

Reduction in installed fibre bend diameter has allowed for completely new fibre management systems to be introduced. The new fibre management systems allow much greater space efficiency.

Applications

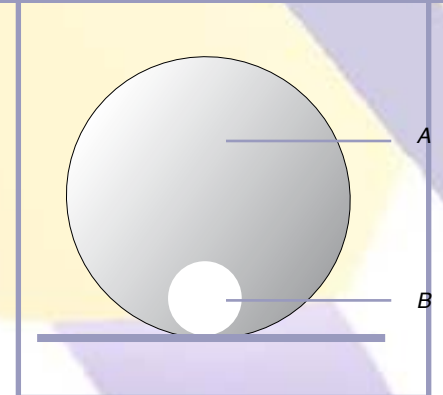
- ▶ The fibre is ideal for installation under tight bend conditions in CATV and FTTH networks.
- ▶ Incorporates all the features of ITU-T G.652D optical fibre including Low Water Peak (LWP) benefits, 1 Gb/s up to an indicative 5 km in data networks and supports ATM, SONET and WDM technologies.
- ▶ All ITU-T G.657A Optronics cable constructions including FTTH tight buffered, loose tube and ribbon.
- ▶ Supports high speed multi channel video, data and voice services in metropolitan and access networks.

Specifications

Cmatic specification for standard 9/125 ITU-T G.657A reduced bend sensitivity singlemode optical fibre. Cmatic ITU-T G.657A optical fibre is fully compatible ITU-T G.652D optical fibre. Cabled values are given where appropriate. All fibre parameters meet or exceed the following requirements:

- ▶ ITU-T G.652D, IEC 60793-2-50 type B1.3 low water peak singlemode optical fibre
- ▶ ITU-T G.657A, IEC 60793-2-50 type B1.3 and B6.A reduced bend sensitivity singlemode optical fibre.
- ▶ ITU-T G.652A/B, IEC 60793-2-50 type B1.3 and B6.AB reduced bend sensitivity optical fibre

The low water peak (LWP) and reduced bend sensitivity fibres are fully compatible with each other and are ideal for installation under tight bend conditions in FTTH networks utilizing tight buffered and loose tube cable constructions.



*A: Best conventional singlemode fibre
30mm bend radius*

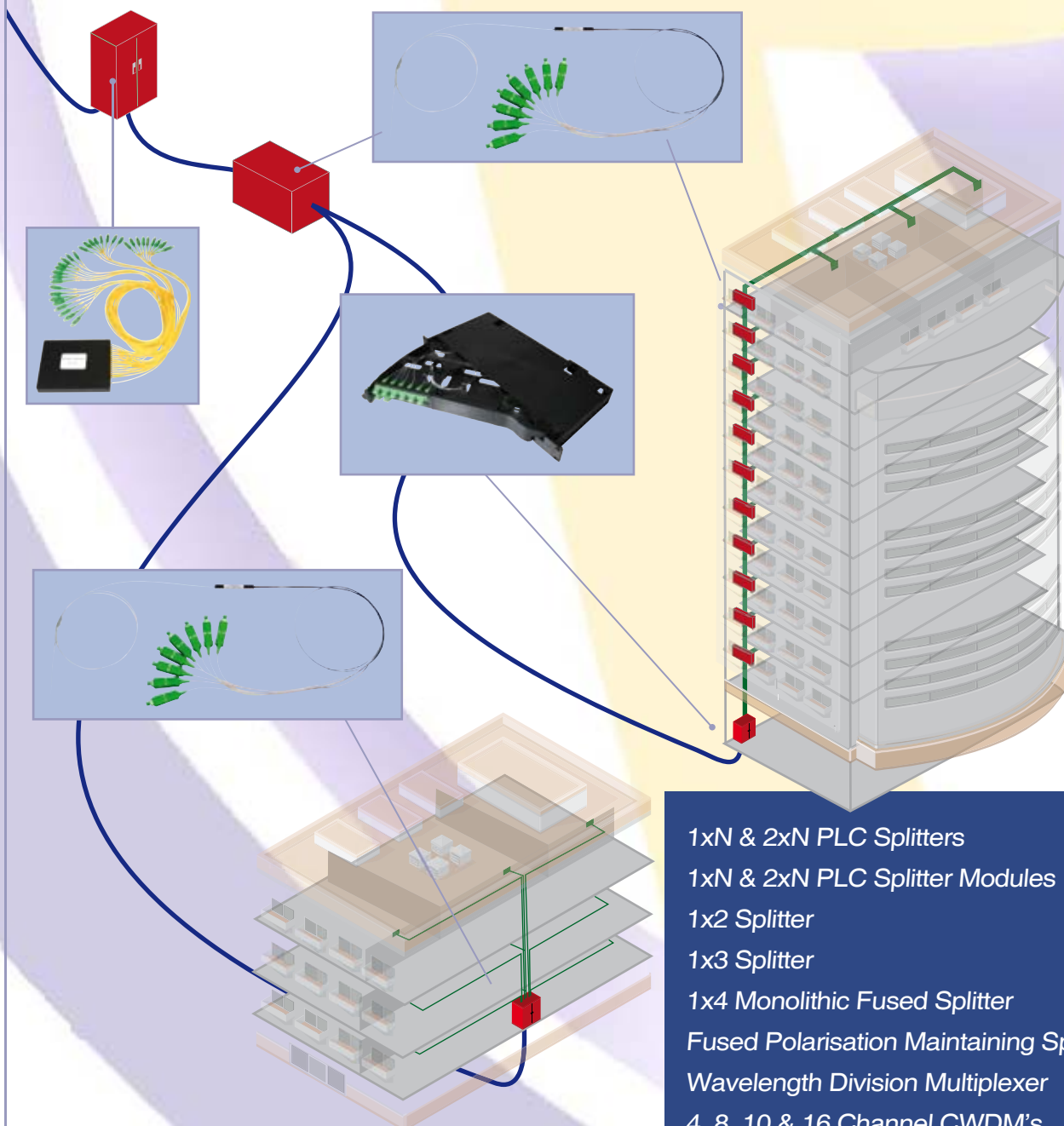
*B: Purelight fibre (singlemode) 7.5mm
bend radius*

Multimode also available

FTTH Splitting and Distribution

Within the PON environment, a signal needs to be distributed or split into nodes, adjoining networks, central offices and subscribers. Cmatic offers a complete range of high specification, fused and planar splitters qualified to Telcordia GR1221, GR1209 and IEC standards. Splitter technology in Telecommunications is predominantly used to send the signal from the central office to offices/homes. Cmatic offer a comprehensive range of SM and PM splitters and WDMs.

The Cmatic range of splitters are fabricated in a world class manufacturing facility fully equipped with clean rooms and cutting edge fabrication equipment. Cmatic splitters are available with various packaging options and a variety of connector options to meet customer requirements.



Splitter Solutions 1xN and 2xN

Range

Cmatic offer a range of standard products including splitters, jumpers, pigtails, WDM, CWDM, FDH (Fibre Distribution Hub) specifically designed for the growing FTTx market.

Bespoke Products

Steady growth and non-generic applications within the telecommunications industry has introduced requirements for new and bespoke products.

There is no standard generic solution for a PON (Passive Optical Network)— operators in every country are opting for differing models and solution. This indicates that many of the applications are now becoming bespoke. Cmatic work closely with operators, cable companies and OEM's globally. Our team has developed a keen understanding of developments and growing applications within the FTTx market.

POP, ONU, PON and P2P

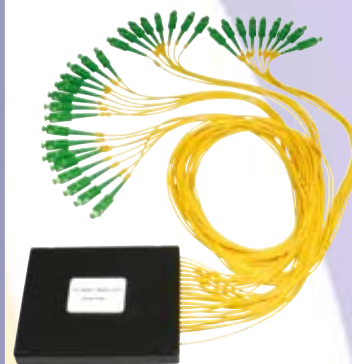
There are fundamental applications for key products between the POP (Point of Presence) to the ONU (Optical Node Units) in a PON or P2P (Point to Point) environment as base level connectivity or distribution. Because of the ever changing demands in the market place FibreFab have realised the need to offer a range of non-standard products.

Splitters

Splitters are a key component within a PON. Although the spec remains the same, the physical characteristics of the product must be flexible to accommodate the varying applications between the POP and the ONU. Cmatic realise this requirement and offer a full range of standard and customised splitter products.



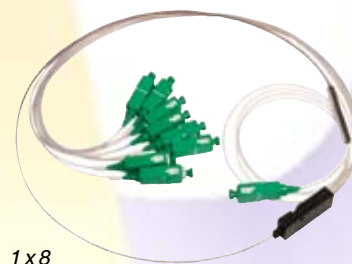
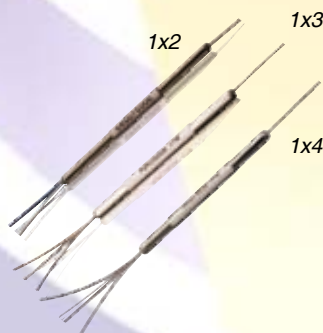
1 x 16 SCA LGX Splitter



1 x 32 SC/A Module



1 x 8 Pivot Panel



1 x 8

1xN and 2xN PLC Splitters

1xN and 2xN PLC Splitters

Growth in today's broadband applications demand reliable high performance splitters for use within a variety of environmental conditions and packaging options. A move towards PON's within the FTTH arena calls for a device offering low insertions loss, linear uniformity and low return loss. Cmatic splitters provide excellent specifications as well as complying to and exceeding Telcordia GR-1221-CORE and GR-1209-CORE standard.

Applications

- ▶ FTTH deployments
- ▶ CATV networks
- ▶ PON's
- ▶ WAN's

Features

- ▶ Designed to meet Telcordia standards
- ▶ Low IL and PDL
- ▶ Excellent uniformity
- ▶ Range of packaging options available
- ▶ High specification connectors available

Specifications

Parameter	Unit	1x2	1x4	1x8	1x16	1x32	1x64
Operating Wavelength (nm)		1260 - 1650					
Insertion Loss without connector (dB) Max. (P/S)		3.8/4.0	7.2/7.4	10.5/10.7	13.5/13.7	16.5/16.9	20.5/21.0
Insertion Loss with connector (dB) Max. (P/S)		4.3/4.5	7.5/7.7	11.0/11.2	14.0/14.2	17.0/17.5	21.0/21.5
Loss Uniformity without connector (dB)	Max.	0.6	0.6	0.8	1.2	1.5	2.5
Loss Uniformity with connector (dB)	Max.	0.6	0.8	1.0	1.4	1.7	2.5
Polarization Dependent Loss (dB)	Max.	0.2	0.2	0.3	0.3	0.3	0.4
Return Loss (dB)	Min (P/S)	55/50					
Directivity (dB)	Min	55					
Operating Temperature (°C)		-40 to 85					
Storage Temperature (°C)		-40 to 85					
Fibre Type		G652.D compliant or customer specified					
Fibre Length (Bare Splitter) (m)		1.0					
Connector Type		Customer specified					

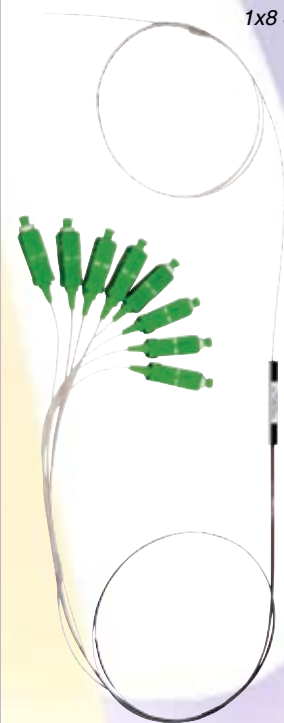
Specifications 1xN

Parameter	Unit	2x2	2x4	2x8	2x16	2x32
Operating Wavelength (nm)		1260 - 1650				
Insertion Loss without connector (dB) Max. (P/S)		3.9/4.2	7.5/7.8	11.2/11.5	14.2/14.5	17.4/17.7
Insertion Loss with connector (dB) Max. (P/S)		4.4/4.7	8.0/8.3	11.7/12.0	14.7/15.0	17.9/18.2
Loss Uniformity without connector (dB)	Max.	0.8	1.5	1.5	1.8	2.0
Loss Uniformity with connector (dB)	Max.	0.8	1.7	1.7	2.0	2.5
Polarization Dependent Loss (dB)	Max.	0.2	0.2	0.4	0.4	0.4
Return Loss (dB)	Min (P/S)	55/50				
Directivity (dB)	Min	55				
Operating Temperature (°C)		-40 to 85				
Storage Temperature (°C)		-40 to 85				
Fibre Type		G652.D compliant or customer specified				
Fibre Length (Bare Splitter) (m)		1.0				
Connector Type		Customer specified				

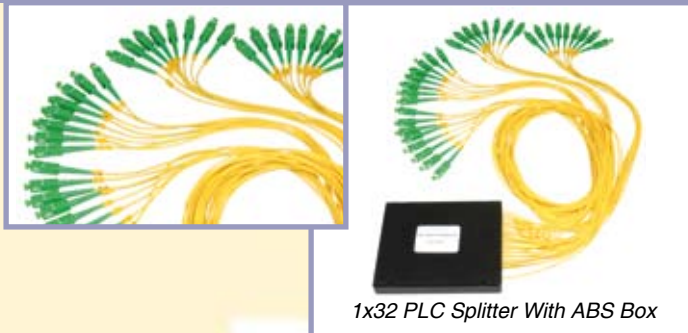
1x32 Bare PLC



1x8 SCA



1xN and 2xN PLC Splitters



1x32 PLC Splitter With ABS Box

Product Range

Type	Configuration	Wavelength	Cable Type	Package Style	Input Connectors	Output Connectors	Fibre Type	Lead length input*	Lead length output*
S PLC									
S PLC	A 1x2	A 1310/1550nm	0 250um	A Case ribbon	A None	A None	D G652D	1 1m	1 1m
	B 1x4	B 1310/1490/1550nm	1 900um	B Breakout unit	B E2000/UPC	B E2000/UPC	A G657A	15 1.5m	15 1.5m
	C 1x8	C Broadband 1260-1625nm	2 2mm*	C 900um lockless Type	C E2000/APC	C E2000/APC		2 2m	2 2m
	D 1x16		3 3mm*	D 2&3mm module	D FC/UPC	D FC/UPC		25 2.5m	25 2.5m
	E 1x32				E FC/APC	E FC/APC		3 3m	3 3m
	F 1x64				F LC/UPC	F LC/UPC			
	G 2x2				G LC/APC	G LC/APC			
	H 2x4				H MU/APC	H MU/APC			
	I 2x8				I MU/UPC	I MU/UPC			
	J 2x16				J SC/APC	J SC/APC			
	K 2x32				K SC/UPC	K SC/UPC			

*Splitters requiring 2mm & 3mm cable will be supplied in a plastic module with flying pigtails

*Other lengths available upon request

Example Part Number: SEB2BJJA11

Type	Configuration	Wavelength	Cable Type	Package Style	Input Connectors	Output Connectors	Fibre Type	Lead length input*	Lead length output*
S PLC	E	B	2	B	J	J	A	1	1
S PLC	A 1x2	A 1310/1550nm	0 250um	A Case ribbon	A None	A None	D G652D	1 1m	1 1m
	B 1x4	B 1310/1490/1550nm	1 900um	B Breakout unit	B E2000/UPC	B E2000/UPC	A G657A	15 1.5m	15 1.5m
	C 1x8	C Broadband 1260-1625nm	2 2mm*	C 2&3mm module	C E2000/APC	C E2000/APC		2 2m	2 2m
	D 1x16		3 3mm*		D FC/UPC	D FC/UPC		25 2.5m	25 2.5m
	E 1x32				E FC/APC	E FC/APC		3 3m	3 3m
	F 1x64				F LC/UPC	F LC/UPC			
	G 2x2				G LC/APC	G LC/APC			
	H 2x4				H MU/APC	H MU/APC			
	I 2x8				I MU/UPC	I MU/UPC			
	J 2x16				J SC/APC	J SC/APC			
	K 2x32				K SC/UPC	K SC/UPC			
L 2x64				L ST/UPC	L ST/UPC				

1xN and 2xN PLC Splitter Modules

1xN and 2xN PLC Splitter Modules

Cmatic has introduced a range of high performance splitters loaded into a variety of management products to include 19" rack mounted panels and LGX modules. A move toward PON's within the FTTH arena calls for a device offering low insertions loss, linear uniformity and low return loss, Cmatic splitters provide excellent specifications on all of the above as well as complying to and exceeding Telcordia GR-1221-CORE and GR-1209-CORE standard.

Applications

- ▶ FTTH deployments
- ▶ CATV networks
- ▶ PON's
- ▶ WAN's

Features

- ▶ Designed to meet Telcordia standards
- ▶ Non-standard housing options available
- ▶ Low IL and PDL
- ▶ Excellent uniformity
- ▶ Range of packaging options available
- ▶ High specification connectors available

1x16 SCA LGX Splitter



Various splitter modules in LGX Chassis



Specifications

Parameter		1x2	1x4	1x8	1x16	1x32	1x64
Operating Wavelength (nm)		1260 ~1650					
Insertion Loss without connector (dB)	Max. (P/S)	3.8/4.0	7.2/7.4	10.5/10.7	13.5/13.7	16.5/16.9	20.5/21.0
Insertion Loss with connector (dB)	Max. (P/S)	4.3/4.5	7.5/7.7	11.0/11.2	14.0/14.2	17.0/17.5	21.0/21.5
Loss Uniformity without connector (dB)	Max.	0.6	0.6	0.8	1.2	1.5	2.5
Loss Uniformity with connector (dB)	Max.	0.6	0.8	1.0	1.4	1.7	2.5
Polarization Dependent Loss (dB)	Max.	0.2	0.2	0.3	0.3	0.3	0.4
Return Loss (dB)	Min (P/S)	55/50					
Directivity (dB)	Min	55					
Operating Temperature (°C)		-40 to 85					
Storage Temperature (°C)		-40 to 85					
Fibre Type		G652.D compliant or customer specified					
Fibre Length (Bare Splitter) (m)		1.0					
Connector Type		Customer specified					

Specifications 1xN

Parameter		2x2	2x4	2x8	2x16	2x32
Operating Wavelength (nm)		1260 ~1650				
Insertion Loss without connector (dB)	Max. (P/S)	3.9/4.2	7.5/7.8	11.2/11.5	14.2/14.5	17.4/17.7
Insertion Loss with connector (dB)	Max. (P/S)	4.4/4.7	8.0/8.3	11.7/12.0	14.7/15.0	17.9/18.2
Loss Uniformity without connector (dB)	Max.	0.8	1.5	1.5	1.8	2.0
Loss Uniformity with connector (dB)	Max.	0.8	1.7	1.7	2.0	2.5
Polarization Dependent Loss (dB)	Max.	0.2	0.2	0.4	0.4	0.4
Return Loss (dB)	Min (P/S)	55/50				
Directivity (dB)	Min	55				
Operating Temperature (°C)		-40 to 85				
Storage Temperature (°C)		-40 to 85				
Fibre Type		G652.D compliant or customer specified				
Fibre Length (Bare Splitter) (m)		1.0				
Connector Type		Customer specified				

1xN and 2xN PLC Splitter Modules



Product Range

Type	Configuration	Wavelength	Package Style	Input Connectors	Output Connectors	Fibre Type	Lead length input	Lead length output										
S	PLC																	
S	PLC	A	1x2	A	1310/1550nm	A	1U 19" fixed	A	None	A	None	D	G652D	1	1m	1	1m	
		B	1x4	B	1310/1490/1550nm	B	2U 19" fixed	B	E2000/UPC	B	E2000/UPC	A	G657A	15	1.5m	15	1.5m	
		C	1x8	C	Broadband 1260-1625nm	C	3U 19" fixed	C	E2000/APC	C	E2000/APC			2	2m	2	2m	
		D	1x16			D	1U 19" sliding	D	FC/UPC	D	FC/UPC			25	2.5m	25	2.5m	
		E	1x32			E	2U 19" sliding	E	FC/APC	E	FC/APC			3	3m	3	3m	
		F	1x64			F	3U 19" sliding	F	LC/UPC	F	LC/UPC							
		G	2x2			G	1U LGX	G	LC/APC	G	LC/APC							
		H	2x4			H	2U LGX	H	MU/APC	H	MU/APC							
		I	2x8			I	3U LGX	I	MU/UPC	I	MU/UPC							
		J	2x16			J	1U pivot	J	SC/APC	J	SC/APC							
		K	2x32			K	SC/UPC	K	SC/UPC	K	SC/UPC							
		L	2x64			L	ST/UPC	L	ST/UPC	L	ST/UPC							

*Other lengths available upon request

Example Part Number: SCCJAKD11

Type	Configuration	Wavelength	Package Style	Input Connectors	Output Connectors	Fibre Type	Lead length input	Lead length output										
S	PLC	C	J	A	K	D	1	1										
S	PLC	A	1x2	A	1310/1550nm	A	1U 19" fixed	A	None	A	None	D	G652D	1	1m	1	1m	
		B	1x4	B	1310/1490/1550nm	B	2U 19" fixed	B	E2000/UPC	B	E2000/UPC	A	G657A	15	1.5m	15	1.5m	
		C	1x8	C	Broadband 1260-1625nm	C	3U 19" fixed	C	E2000/APC	C	E2000/APC			2	2m	2	2m	
		D	1x16			D	1U 19" sliding	D	FC/UPC	D	FC/UPC			25	2.5m	25	2.5m	
		E	1x32			E	2U 19" sliding	E	FC/APC	E	FC/APC			3	3m	3	3m	
		F	1x64			F	3U 19" sliding	F	LC/UPC	F	LC/UPC							
		G	2x2			G	1U LGX	G	LC/APC	G	LC/APC							
		H	2x4			H	2U LGX	H	MU/APC	H	MU/APC							
		I	2x8			I	3U LGX	I	MU/UPC	I	MU/UPC							
		J	2x16			J	1U pivot	J	SC/APC	J	SC/APC							
		K	2x32			K	SC/UPC	K	SC/UPC	K	SC/UPC							
		L	2x64			L	ST/UPC	L	ST/UPC	L	ST/UPC							

Fused Splitters (SM)

Applications

- ▶ FTTH
- ▶ Power Splitting
- ▶ CATV Networks
- ▶ Power Monitoring
- ▶ Fibre Optic Sensors
- ▶ PON
- ▶ Fibre communication systems

Features

- ▶ Near zero excess loss
- ▶ Low Back reflection
- ▶ Thermally stable
- ▶ Low PDL
- ▶ Accurate Split Ratio
- ▶ All-Fibre Technology FBT
- ▶ Excellent Uniformity
- ▶ Qualified to GR1209 and GR1221 Telcordia standards
- ▶ Available in single, dual window or broadband

1x2 Splitter

1x2 Splitter standard wavelength windows are centered at 1310nm and 1550nm. The Cmatic high performance Fused Bi-Conical Taper process (FBT) bidirectional singlemode 1x2 splitters are designed for ease of use in optical systems to split the signal from one fibre into two output fibre lines with ultra low loss. These devices can also be used to combine two signals into one. Fabricated using the state of the art FBT process the splitters operate over a wide range of wavelengths. These splitters are available in both 1x2 and 2x2 configurations. Single window and broadband 1x2 splitters are available on request.

1x3 Splitter

Cmatic high performance bidirectional singlemode splitters are used to split light from one fibre into three outgoing fibre lines with ultra low loss. This device is a highly compact all-fibre splitter fabricated using the state of the art Fused Bi-Conical Taper process (FBT). The splitter will operate in either 1310nm and 1550nm wavelengths

1x4 Monolithic Fused Splitter

Cmatic Truly Fused 1x4 1x2 splitters are specifically designed and optimised for Fibre to the Home (FTTH) applications. Manufactured using state of the art Fused Bi-Conical Taper process (FBT), these splitters exhibit uniform performance over the entire optical band from 1260-1630nm with near zero excess loss. The epoxy free optical path of the Cmatic monolithic fused splitter provides good power handling capability.



Product Range

Type	Configuration	Wavelength	Cable Type	Fibre Type	Input Connectors	Output Connectors	Fibre Type	Lead length input*	Lead length output*																																																																																																													
S	FBT																																																																																																																					
Split ratio																																																																																																																						
S	FBT	<table border="1"> <tr><td>A1</td><td>1x2 50 / 50</td></tr> <tr><td>A2</td><td>1x2 60 / 40</td></tr> <tr><td>A3</td><td>1x2 70 / 30</td></tr> <tr><td>A4</td><td>1x2 80 / 20</td></tr> <tr><td>A5</td><td>1x2 90 / 10</td></tr> <tr><td>A6</td><td>1x2 95 / 5</td></tr> <tr><td>B</td><td>1x3</td></tr> <tr><td>C</td><td>1x4</td></tr> <tr><td>D</td><td>2x2</td></tr> <tr><td>E</td><td>2x4</td></tr> </table>	A1	1x2 50 / 50	A2	1x2 60 / 40	A3	1x2 70 / 30	A4	1x2 80 / 20	A5	1x2 90 / 10	A6	1x2 95 / 5	B	1x3	C	1x4	D	2x2	E	2x4	<table border="1"> <tr><td>A</td><td>1310/1550nm</td></tr> <tr><td>B</td><td>1310/1490/1550nm</td></tr> <tr><td>C</td><td>Broadband 1260-1625nm</td></tr> </table>	A	1310/1550nm	B	1310/1490/1550nm	C	Broadband 1260-1625nm	<table border="1"> <tr><td>0</td><td>250um</td></tr> <tr><td>1</td><td>900um</td></tr> <tr><td>2</td><td>2mm*</td></tr> <tr><td>3</td><td>3mm*</td></tr> </table>	0	250um	1	900um	2	2mm*	3	3mm*	<table border="1"> <tr><td>A</td><td>Singlemode</td></tr> </table>	A	Singlemode	<table border="1"> <tr><td>A</td><td>None</td></tr> <tr><td>B</td><td>E2000/UPC</td></tr> <tr><td>C</td><td>E2000/APC</td></tr> <tr><td>D</td><td>FC/UPC</td></tr> <tr><td>E</td><td>FC/APC</td></tr> <tr><td>F</td><td>LC/UPC</td></tr> <tr><td>G</td><td>LC/APC</td></tr> <tr><td>H</td><td>MU/APC</td></tr> <tr><td>I</td><td>MU/UPC</td></tr> <tr><td>J</td><td>SC/APC</td></tr> <tr><td>K</td><td>SC/UPC</td></tr> <tr><td>L</td><td>ST/UPC</td></tr> </table>	A	None	B	E2000/UPC	C	E2000/APC	D	FC/UPC	E	FC/APC	F	LC/UPC	G	LC/APC	H	MU/APC	I	MU/UPC	J	SC/APC	K	SC/UPC	L	ST/UPC	<table border="1"> <tr><td>A</td><td>None</td></tr> <tr><td>B</td><td>E2000/UPC</td></tr> <tr><td>C</td><td>E2000/APC</td></tr> <tr><td>D</td><td>FC/UPC</td></tr> <tr><td>E</td><td>FC/APC</td></tr> <tr><td>F</td><td>LC/UPC</td></tr> <tr><td>G</td><td>LC/APC</td></tr> <tr><td>H</td><td>MU/APC</td></tr> <tr><td>I</td><td>MU/UPC</td></tr> <tr><td>J</td><td>SC/APC</td></tr> <tr><td>K</td><td>SC/UPC</td></tr> <tr><td>L</td><td>ST/UPC</td></tr> </table>	A	None	B	E2000/UPC	C	E2000/APC	D	FC/UPC	E	FC/APC	F	LC/UPC	G	LC/APC	H	MU/APC	I	MU/UPC	J	SC/APC	K	SC/UPC	L	ST/UPC	<table border="1"> <tr><td>D</td><td>G652D</td></tr> <tr><td>A</td><td>G657A</td></tr> </table>	D	G652D	A	G657A	<table border="1"> <tr><td>1</td><td>1m</td></tr> <tr><td>15</td><td>1.5m</td></tr> <tr><td>2</td><td>2m</td></tr> <tr><td>25</td><td>2.5m</td></tr> <tr><td>3</td><td>3m</td></tr> </table>	1	1m	15	1.5m	2	2m	25	2.5m	3	3m	<table border="1"> <tr><td>1</td><td>1m</td></tr> <tr><td>15</td><td>1.5m</td></tr> <tr><td>2</td><td>2m</td></tr> <tr><td>25</td><td>2.5m</td></tr> <tr><td>3</td><td>3m</td></tr> </table>	1	1m	15	1.5m	2	2m	25	2.5m	3	3m
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Wavelength Division Multiplexer

Wavelength Division Multiplexer

Cmatic high performance WDMs have been specifically designed for multiplexing two different signals into a single fibre or split two signals for separate wavelengths from an incoming fibre. The Cmatic 1310/1550nm WDM can be integrated into single fibre bidirectional systems.

Applications

- ▶ FTTH
- ▶ Telecommunications Networks
- ▶ CATV Networks
- ▶ Fibre Optic T&M equipment
- ▶ Fibre Optic Sensor
- ▶ PON
- ▶ Fibre communication systems

Features

- ▶ Near Zero Excess Loss
- ▶ Low Back reflection
- ▶ Thermally stable
- ▶ Low PDL
- ▶ All-Fibre Technology FBT
- ▶ Excellent Uniformity
- ▶ Qualified to GR1209 and GR1221 Telcordia standards
- ▶ Compact packaging

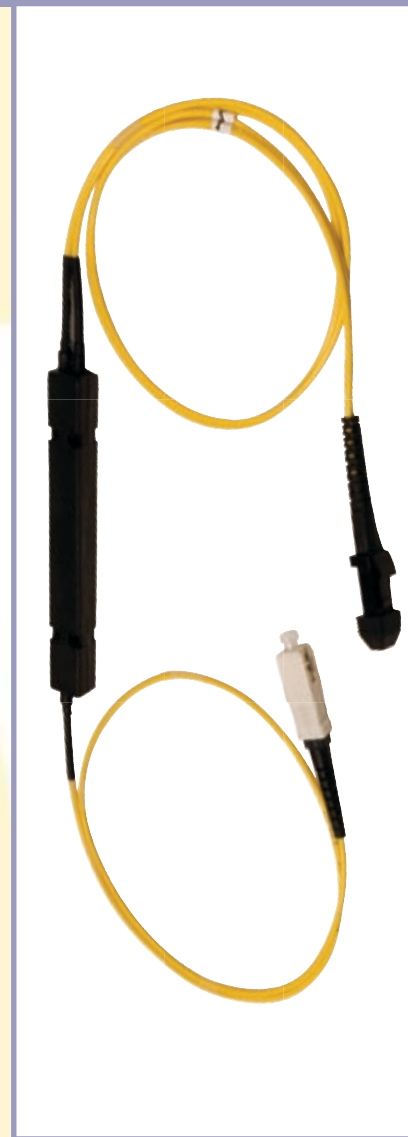
Specifications

Parameter	Units	1310/1550	1310/1490	980/1550
Operating Wavelength	nm	1310/1550 ±15	1310/1490 ± 10	980/1550 ± 10
Maximum Insertion Loss*	dB	0.2	0.3	0.2
Isolation	dB	20	17	20
Directivity	dB		≥ 50	
Operating Temperature	°C		-40 to 85	
Storage Temperature	°C		-40 to 70	
Fibre Type		Corning SMF-28		Corning 1060

Dimensions

Parameter	Value
Light - 250µm Coated Fibre	3.0mm (Diameter) x 55mm (Length)
Medium - 900µm Tube	3.05mm (Diameter) x 65mm (Length)
Heavy - 3 mm Jacketed Cable	96.5mm (Length) x 12mm (Breadth) 10mm (Height)

* Values given are maximum, please contact FibreFab for typical and minimum values.



Product Range

Description	Part Number
WDM	Contact Sales

CWDM 4, 8, 10, 16ch

CWDM MUX / DEMUX

The Cmatic CWDM (Coarse Wavelength Division Multiplexer) can use up to 18 separate channels for transmission of optical signals. The CWDM offers the provider the opportunity of a low cost upgrade option to increase the bandwidth of the network. CWDM is tested to Telcordia GR-1221 and GR-1209 standards and qualified for uncontrolled environment applications. The CWDM complies with industry green initiatives such as RoHS.

Cmatic can provide customised designs to meet specialised feature applications. The CWDM can be supplied as a discrete and rack mounted solution

Applications

- ▶ WDM System for Metro Networks
- ▶ WDM FTTx

Features

- ▶ Low Insertion Loss
- ▶ Super Thermal Stability
- ▶ High Reliability
- ▶ Epoxy-Free Optical Path

Specifications

Parameter	Min.	Typical	Max.	Units
Operating Wavelength		1420 ~ 1625		nm
Centre Wavelength		ITU Grid		nm
Channel Spacing		20		nm
Passband Range		± 6.5		nm
Insertion Loss (Over all wavelength range) 1		1.2	1.4	dB
Passband Ripple			0.3	dB
PDL			0.1	dB
Adjacent Band Isolation	30			dB
Non-adjacent Band Isolation	40			dB
Directivity	50			dB
Return Loss	45			dB
Operating Power			500	mW
Operating Temperature	0		70	°C
Storage Temperature	-40		85	°C

[1] Insertion Loss is excluding connectors

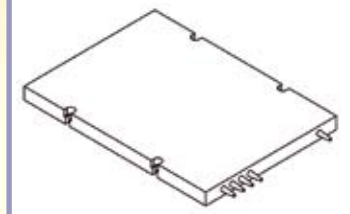
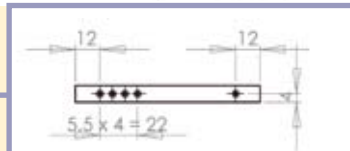
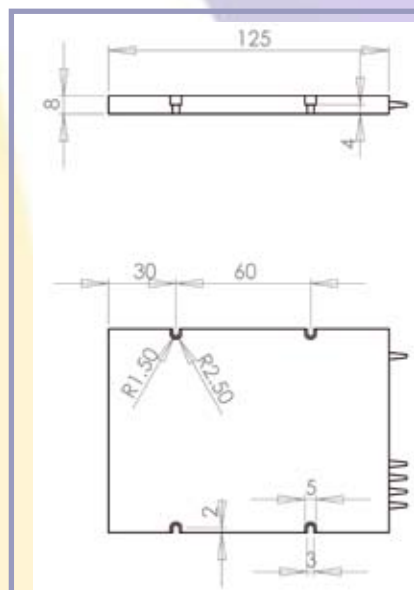
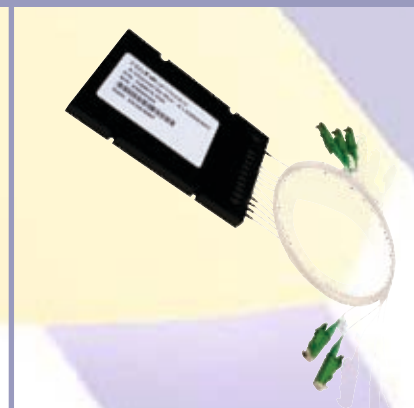
Centre Wavelength (nm, ITU Grid)			
1271	1291	1311	1331
1351	1371	1431	1451
1471	1491	1511	1531
1551	1571	1591	1611

Description

Parameter	Unit	Value
1x4	mm	(Length) 125 (Width) 90 (Height) 8

Product Range

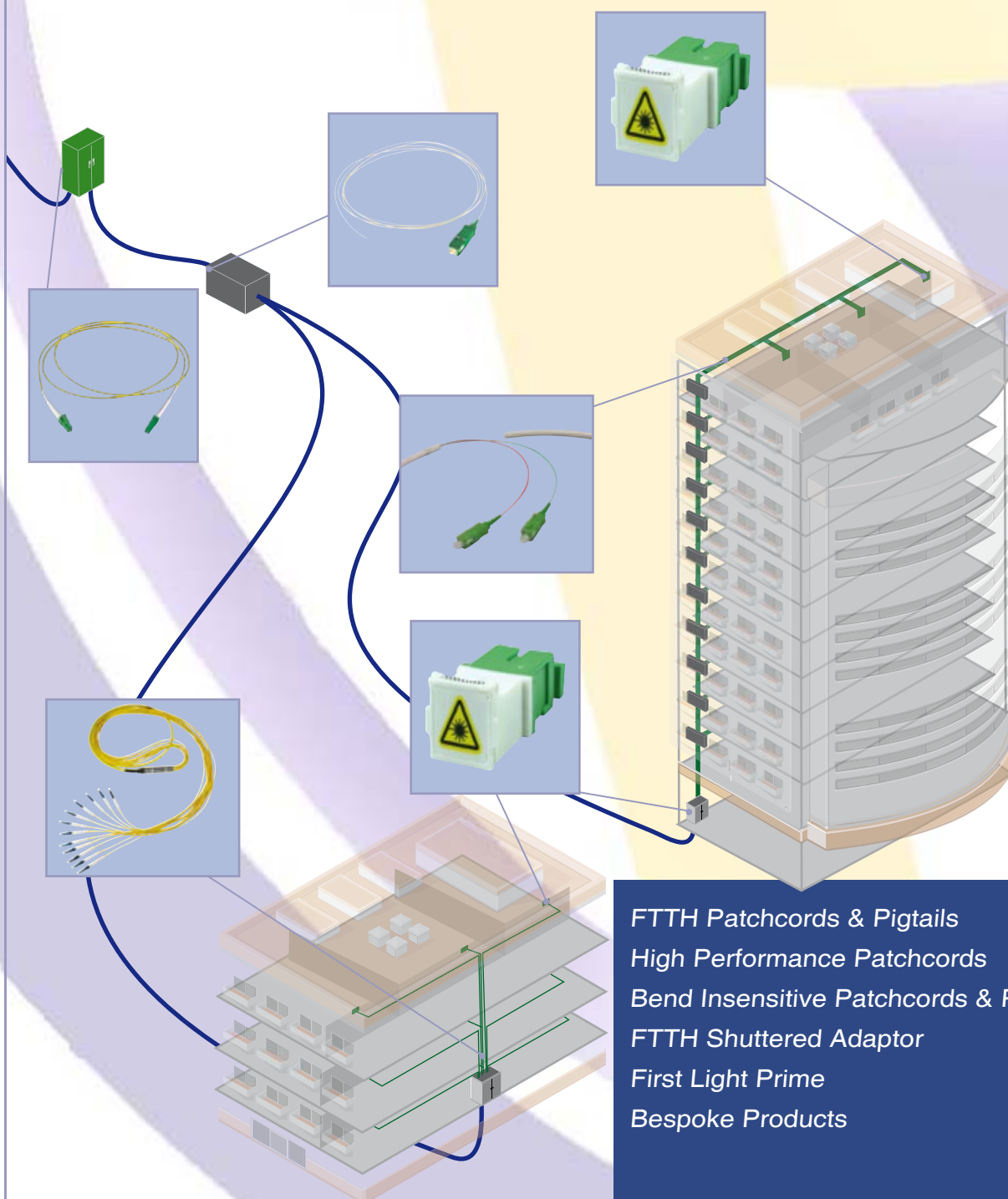
Description	Part Number
4 Channel CWDM	Call
8 Channel CWDM	Call
10 Channel CWDM	Call
16 Channel CWDM	Call



FTTH Pre-Terminated Solutions

The core technology behind Cmatic connectivity solutions has grown from an in-depth pre-termination expertise. Both innovation and large scale manufacturing has helped to secure Cmatic as a leading provider of pre-terminated connectivity solutions.

Cmatic offers a range of factory terminated products including, multi core pre-terms, patchcords, pigtails, passive components and MTP solutions fabricated as standard products or to suit customer specific requirements, currently G652D is standard, Cmatic also offers a range of G657A and G657A/B fibre types.



FTTH Patchcords & Pigtails	45
High Performance Patchcords	46
Bend Insensitive Patchcords & Pigtails	45
FTTH Shuttered Adaptor	48
First Light Prime	49
Bespoke Products	50

FTTH Singlemode Patchcords & Pigtails

Singlemode Patchcords & Pigtails

Optical fibre patchcords are a defining factor in ensuring a network performs to the highest level. Patchcord performance is key in guaranteeing a continued low Insertion Loss (IL) and high Return Loss (RL).

Applications

- ▶ FTTx
- ▶ Telecommunications Network
- ▶ Data-communication Network
- ▶ CATV
- ▶ Test and measurement

Features

- ▶ Fast turn around of non-standard requirements
- ▶ Full traceability & test certification supplied with each assembly
- ▶ Ultra polish & Angle polish options available
- ▶ RoHS compliant
- ▶ Single ferrule (ceramic) and multi fibre ferrule component types.

Specifications

Patchcord Specification

Mechanical	1m to 10m ± 10mm Other Lengths available upon request
Split Length (Duplex)	150mm ± 5mm

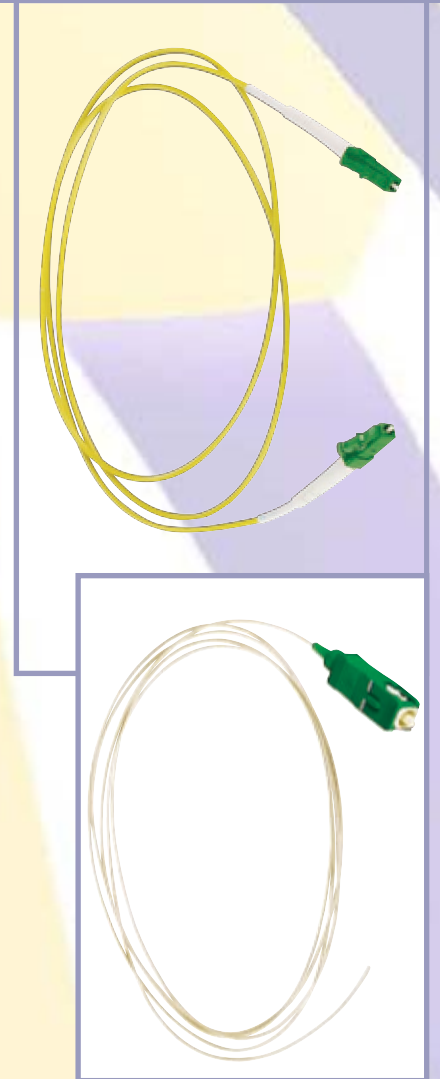
Product Packaging	Each patchcord is packaged individually and individually identified for traceability, test certification is supplied for each assembly.
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Connector Specification

Optical Performance	Insertion loss: Max. 0.3 dB Typical 0.2 dB Return Loss: UPC > 50dB, APC >60dB
Optical Performance (MTRJ)	Insertion loss: Max. 0.5 dB
Operating Temperature	-40°C to +85°C

Optical Fibre and Cable Performance

Attenuation	(1310/1550)	0.38/0.24
Sheath Colour	Yellow	
Strength Members	Aramid yarn	
Fire Performance	LSZH for Internal/External Applications Flame Resistance IEC 60332-1	
Intermateability	Optically and mechanically compatible with all equivalent connectors. Compliant with IEC 61754	



Product Range

For ordering information see p58

High Performance Patchcords (Typical 0.08dB IL)

High Performance Patchcords (Typical 0.08dB IL)

Cmatic High Performance Patchcords are a range of “best in class” patchcords employing highest grade components, manufacturing processes and test methods that offer excellent performance for demanding telecommunications and data centre applications. High Performance Patchcords are used where low loss budgets are essential and may be considered for splice replacement.

Features and Benefits

- ▶ All terminations, including multimode, finished with UPC ultrapolish to assure high Return Loss
- ▶ All terminations optically tested for attenuation and return loss
- ▶ All singlemode terminations tested for endface geometry
- ▶ Test certificate provided with each patchcord
- ▶ Unique S/N provides traceability of test data with 5 year data retention
- ▶ Singlemode HP Patchcords use low water peak fibre, enabling use in CWDM applications
- ▶ Singlemode HP patchcords employ bend insensitive fibre, allowing a bend radii of 15mm without impact on loss
- ▶ Multimode HP Patchcords use enhanced bandwidth-distance fibre for long span performance in 10G and beyond networks

Standards and Compliance

- ▶ **RoHS:** Full compliance
- ▶ **Cable:** LSZH – IEC 60332-1 (Flammability), IEC 61034-1/2 (Smoke Emission), IEC 60754-1/2 (Acid Gas Emission)
- ▶ **Connectors:** IEC 61754 (Connector Type Standards)
- ▶ **Optical Testing:** IEC 61300-3-4 (Attenuation/Insertion Loss), IEC 61300-3-6 (Return Loss)
- ▶ **Endface Geo.:** Exceed requirements of IEC 61755-3-1/2 (Optical Interfaces)
- ▶ **Visual Insp.:** IEC 61300-3-35 with zero defects allowed in core region
- ▶ **Networking:** Meet or exceed requirements of IEC 11801 and TIA/EIA-568-B.3

Features and Benefits

High Performance Patchcords are available in configurations to suit most network applications. Connector style may be selected for each end and cable may be of 2mm diameter simplex or zip duplex construction. Singlemode patchcords utilise G.657A fibre for compatibility with ITU-T G.652 A – D and IEC 11801 OS1 and OS2 (draft standard) fibre types. Multimode patchcords are available in OM1+ / 62.5µ core and OM3+ / 50µ core. Select OM3+ for compatibility with OM2 / 50µ core and OM4 (draft standard) fibre types.

Specifications

Fibre Type	Cable	Connector	Attenuation			Return Loss		
			Typical ¹	97% Rand ²	Max. v Ref ³	UPC	APC	
Singlemode	G.657A	2mm SX/DX	LC	0.08dB	0.18dB	0.20dB	>55dB	>70dB
		2mm SX/DX	SC	0.08dB	0.18dB	0.20dB	>55dB	>70dB
		2mm SX/DX	FC	0.07dB	0.15dB	0.18dB	>55dB	>70dB
Multimode	OM1+, OM3+	2mm SX/DX	LC	0.08dB	0.20dB	0.25dB	>26dB	
		2mm SX/DX	ST	0.12dB	0.25dB	0.30dB	>26dB	
		2mm SX/DX	SC	0.08dB	0.20dB	0.25dB	>26dB	
		2mm SX/DX	FC	0.08dB	0.20dB	0.25dB	>26dB	

¹ Mean for random mating of connections per IEC 61300-3-34.

² Attenuation for which 97% of randomly mated connections will be less than or equal to.

³ Maximum attenuation of connection with reference connector per IEC 61300-3-4.

Product Range

For more information about Cmatic range of High Performance Patchcords, please contact our sales team.



9/125 Bend Insensitive Patchcords/Pigtails (G657A and A/B)

Bend Insensitive Purelight™ Patchcords

The Cmatic range of patchcords has developed from standard multimode fibre to high performance singlemode patchcords. Cmatic can now offer patchcords that have a higher tolerance for bending so can withstand bend radius down to 7.5 mm rather than the standard 30 mm.

Cmatic has introduced a range of low bend radius singlemode fibre patchcords and pigtails. This fibre is fully compatible with conventional singlemode fibre and is ideal for use in FTTH applications or networks that have limited space.

Cmatic has 15 years experience in manufacturing fibre optic cable assemblies using Biconic and SMA through ST, SC to today's Small Form Factor connectors like the LC, MU, MT-RJ or SD-DC. If you have a fibre optic network, no matter what the technology, Cmatic offer you a solution to your problem.

The Cmatic range of patchcords has grown through the years, from every day standard lengths to special products to meet your needs. From industry standard 62.5/125 multimode to 9/125 singlemode right the way up to state of the art OM3 50/125 cable assemblies, FibreFab can supply them all.

Specifications

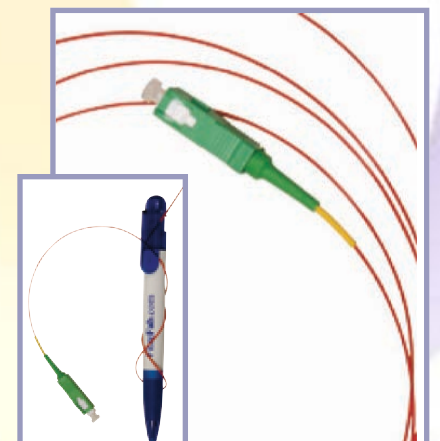
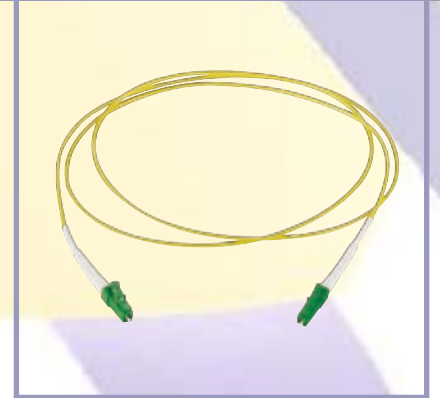
Parameter	Value
Maximum insertion loss	Multimode 0.5 dB Typical 0.35 dB Singlemode 0.3 dB Typical 0.2 dB
Return Loss	UPC better than 50dB, - APC better than 60dB
Temperature Cycling	(IEC 61300-2-48) -40 to +85°C, 42 cycles = 0.2 dB Change
High Temperature	(IEC 61300-2-18) 75°C for 96 hours = 0.2 dB Change
Damp Heat	(IEC 61300-2-19) 60°C at 95% RH, 96 hours = 0.2 dB Change
Vibration (Mated Pair)	(IEC 61300-2-1) 10-55 Hz, 1.5mm P to P = 0.3dB Change
Mating Durability	(IEC 61300-2-2) 1000 mating cycles Clean every 25 < 0.2 dB Change
Operating Temperature	40°C to +85°C
Minimum Bend Radius	15 mm
Core Diameter	8.6 +/- 0.4µm
Cladding diameter	125 +/- 0.5µm
Attenuation	1310 nm ≤ 0.4 dBkm ⁻¹ - 1550 nm ≤ 0.25 dBkm ⁻¹
Chromatic dispersion	1550 nm - 18ps/nm-km
Connectors available	Types: FC, FC/APC, ST, SC, SC/APC, LC, E2000
Length	1000mm to 10,000mm +/- 10mm - Other lengths available to order
Product Packaging	Each patchcord is packaged individually and individually identified for traceability, test certification is supplied for each assembly.
Intermateability	Optically and mechanically compatible with all equivalent connectors. Compliant with IEC 874-14.

Bend Insensitive Purelight™ Pigtails

A growing need for fibre with a tighter bend radius is becoming apparent within the premise. Cmatic offer a range of pigtails and patchcords using G657.A and G657.A/B fibre, which is fully compatible with standard G652 and G652.D fibre. Cmatic supply a range of patchcords that can be terminated with any connector; early deployments have indicated SC/A as the favoured connector type within the FTTH environment.

Product Range

For full information on the Cmatic connectors used on the Cmatic patchcords, please contact us for a connector data sheet.



Shuttered Adaptor

Cmatic have developed a subscriber adapter for use within the home environment, the adapter uses the same footprint as a standard flangeless adapter and has a hinged shutter on the front to comply with laser safety standards.

An optical fibre adapter or uniter is used to mate two connectors together, usually mounted in a distribution panel or wall box.

The Cmatic optical fibre adapters are precision made to ensure perfect alignment of connectors, reducing insertion loss. In most cases, it is the critical part of the system that aligns the ferrule part of the connectors, keeping the fibres in perfect alignment.

Phosphor bronze sleeves are for general use, while the ceramic versions are normally only used in singlemode low loss environments.

In the case of the MTRJ and MTP®/MPO the alignment is carried out by two small pins fitted to one of the connectors. The adapter is purely to support and lock the connectors together in the distribution panel or wall box.



Applications

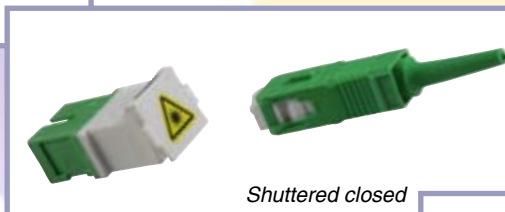
- ▶ Fibre distribution
- ▶ LAN and WAN
- ▶ FTTx Applications
- ▶ CATV
- ▶ Testing instruments
- ▶ Telecommunications systems

Features

- ▶ Available as SC,
- ▶ Low insertion loss
- ▶ High repeatability and stability



Shuttered open



Shuttered closed



Shuttered with Connector

Product Range

For more information about Cmatic range of High Performance Patchcords, please contact our sales team.

Optronics First Light Prime

FirstLight Prime is the latest addition to the Cmatic FirstLight pre-terminated optical cabling portfolio. Its compact and flexible design means it is well suited to many applications including Data Centre, Central Office, LAN's and Campus Cabling.

Its unique design means it is a true internal/external cable assembly. Utilising a new design of cable and breakout module we are able to offer 1000N of tensile strength as well as superior crush resistance and optical performance.

With its modular construction, FirstLight Prime can be presented in several different styles including 2.0mm ruggedised, 900µm tails or a combination of both. This means it is suited for use as a direct connection to equipment or an internal connection within a patch panel or ODF environment.

Applications

- ▶ WDM System for Metro Networks
- ▶ WDM FTTx

Benefits

- ▶ Simple installation
- ▶ Tailored to your application
- ▶ Lower cable cost per meter than equivalent pre-terminated assemblies
- ▶ Superior mechanical and optical performance

Specifications

- ▶ True 1000 Newton pulling strength
- ▶ Loose tube cable construction
- ▶ Fibre friendly presentation
- ▶ High fibre count, with MTP to legacy connectivity
- ▶ Bespoke solutions available
- ▶ Modular solutions available

Product Range

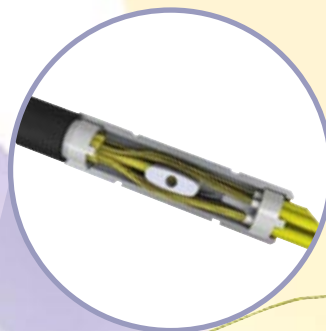
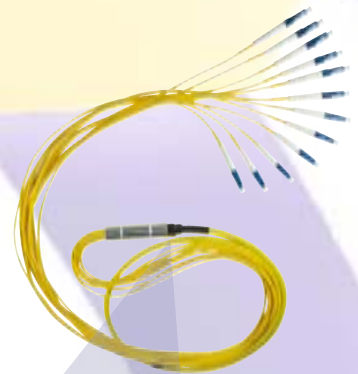
For more information about Cmatic range of High Performance Patchcords, please contact our sales team.

Features

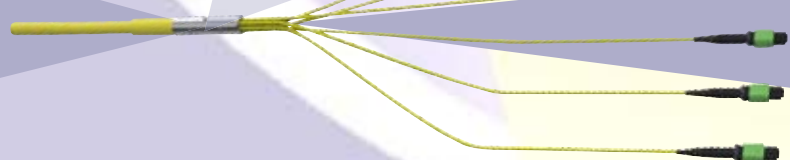
- ▶ Low Insertion Loss
- ▶ Super Thermal Stability
- ▶ High Reliability
- ▶ Epoxy-Free Optical Path

Options

- ▶ OM1, OM2, OM3, OM3+, OS2 fibre types
- ▶ 2.0mm ruggedised or 900µm tails
- ▶ 12, 24 or 48 fibre cable (48 fibre available in 900µm only, other fibre counts on special order)
- ▶ Retrofit pulling sock (sold separately)



1000N
Pulling Strength



1000N
Pulling Strength

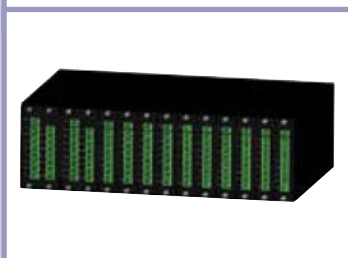
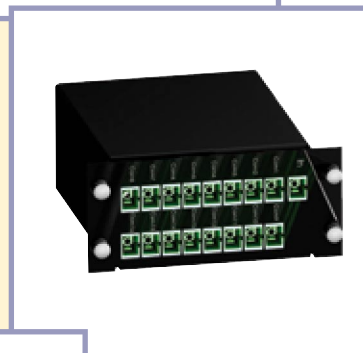
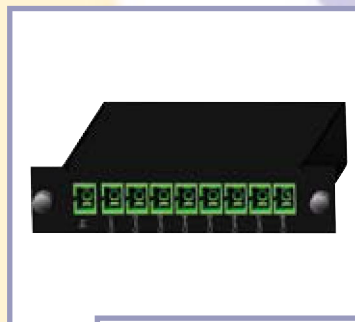
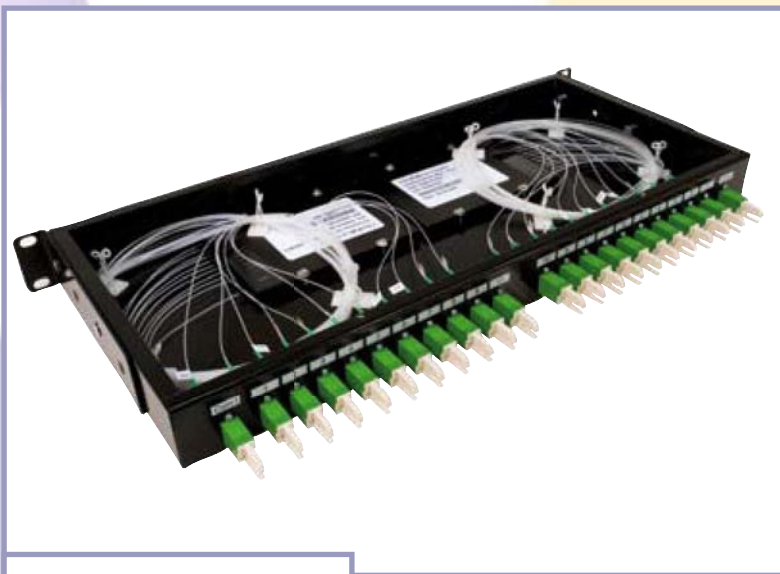
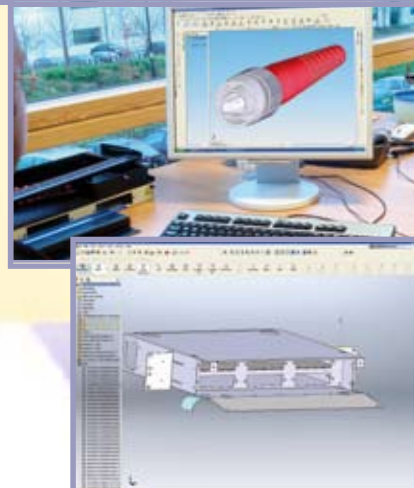
Bespoke Value Add Products

Market dynamics are changing, Cmatic has seen a growth in the need for innovative, customer specific products required for individual operator needs. To support these developments Cmatic has dedicated our global R&D resource to work on customer bespoke products – the team has an in depth a long history of fibre, fibre management, cad drawing expertise – our multi cultural approach ensures a holistic and versatile view on changing customer needs.

Cmatic uses solid works and e-drawings we offer full concept to production manufacturing service

Cmatic boast a strong R&D team with backgrounds from many different cultures enabling a more holistic approach to design and development.

Cmatic strength lays in our capability to take a concept and design new products right through to pre-production – always getting to the core of the issue and working with the customer for fast delivery. Our design facilities span the globe providing us and in turn the customer with engineering expertise across the spectrum



Wall Outlet



Wall Outlet



Cmatic have supplied CWDM, PLC and WDM products in the above packaging.

Connectivity



Cmatic offers a comprehensive range of connectivity products designed to suit industry standard Telecordia and IEC requirements. While customer applications are varied, Cmatic have a solution that will suit every purpose within a fibre network.

As costs of installation are increasing Cmatic can offer a range of pre-terminated solutions, this range includes pre-terminated cable and MPO products. Our pre-terminated solution can be provided on our own optronics cable or customer supplied options.

Cable types that can be used are tight buffer for indoor applications and loose tube for outdoor applications. Cmatic offer the option to use steel tape armour for severe applications.



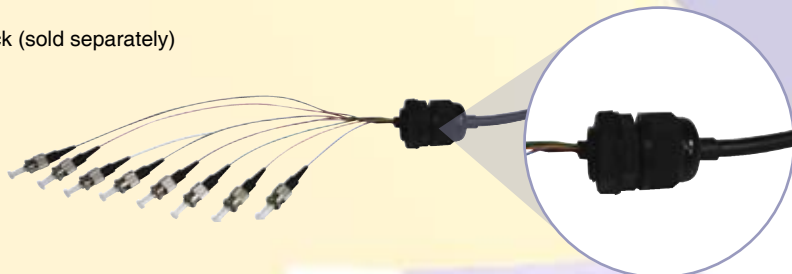
Pre-Terminated Fibre	52
Fixed Attenuators	53
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Singlemode Patchcords & Pigtailed	55
Adapters	63
MPO Solution	64

Pre-Terminated Fibre

First Light Basic

Low cost for short runs. Can be used with optional pulling sock (sold separately)

- ▶ For internal use
- ▶ Suitable for short runs
- ▶ Ideal for patch panel to patch panel configurations
- ▶ Up to 24 fibres standard
- ▶ Up to 48 fibres special order



First Light Classic

Ideal for inter-connection between comms cabinets, where pulling protection is required to aid installation

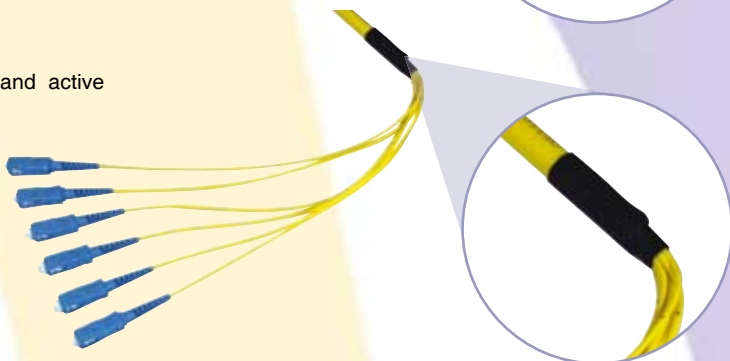
- ▶ For internal and external use
- ▶ Ideal for patch panel to patch panel configurations
- ▶ Includes pulling eye & pulling protection
- ▶ Up to 24 fibres standard
- ▶ Up to 48 fibres special order



First Light Breakout

Suited to applications that inter-connect between patch panels and active equipment, and where a ruggedised tail is required

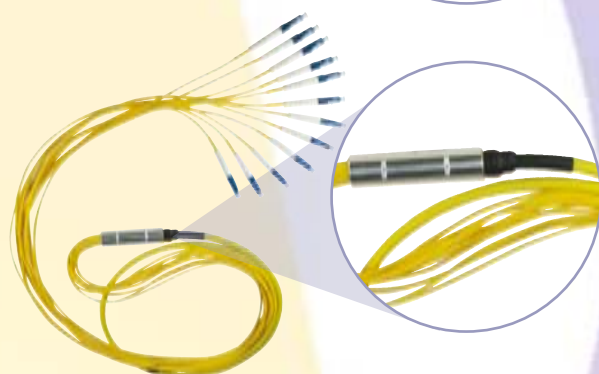
- ▶ For internal use
- ▶ Short lengths available
- ▶ Ideal for patch panel to switch configurations
- ▶ Ruggedised
- ▶ Up to 24 fibres standard
- ▶ Rapid Deployment



First Light Prime

Suited to internal and external applications. Utilizing a new design of cable and breakout module it is able to offer up to 1000N of tensile strength in addition to superior crush resistance and optical performance

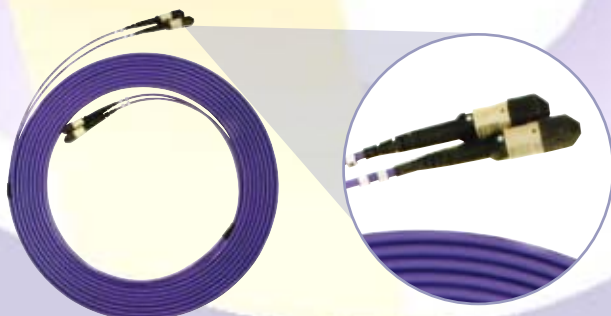
- ▶ For internal and external use
- ▶ Ideal for patch panel to switch configurations
- ▶ Lightweight
- ▶ 1000N pulling strength
- ▶ Rapid deployment
- ▶ Up to 12 fibres 2mm jacket
- ▶ Up to 24 fibres 900µm bare fibre



First Light High Density

Utilizing MTP technology, a complete solution for the rapid deployment of data centre high density cabling systems

- ▶ For internal use
- ▶ Short lengths available
- ▶ Rapid deployment
- ▶ High density
- ▶ 12 - 72 fibres standard configuration
- ▶ 12 - 144 fibres special order



Fixed Attenuators

Fixed Attenuators

Cmatic singlemode attenuators are used in communication systems to reduce optical power launched onto the photo detector. These high performance devices are designed to give accurate attenuation over a wide range of wavelengths. The plug type configuration allows ease of use functionality directly to the fibre patchcord for insertion onto the adapter. Cmatic attenuators offer compact ruggedised packaging with sealed housings to alleviate risk of damage to expensive equipment.

Applications

- ▶ Telecommunications networks
- ▶ FTTX
- ▶ LAN & WAN
- ▶ CATV
- ▶ Fibre optic sensing
- ▶ Test and measurement

Capability

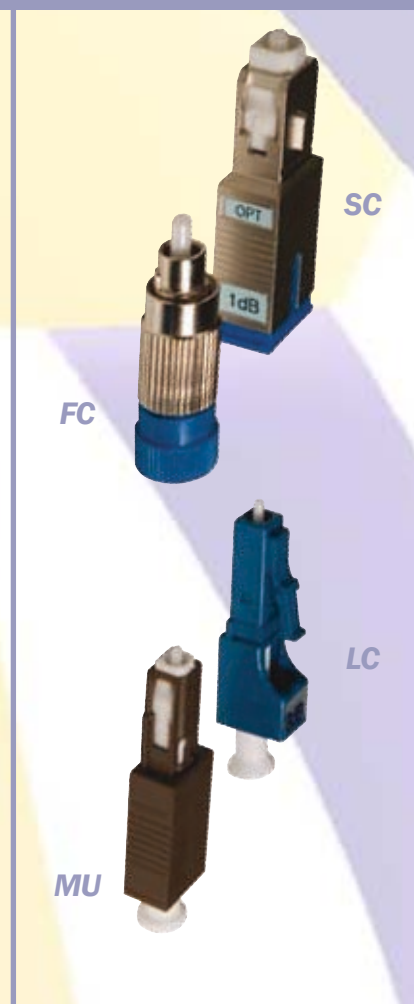
Available with FC, SC, LC and MU connector styles offering UPC or APC finish providing ultra low return loss. The Cmatic range of attenuators are fabricated in a high tech facility fully equipped with clean rooms and state of the art measurement equipment.

Specifications

Connector type		SC, FC, LC, MU	
Attenuation	dB	1 - 30	
Attenuation tolerance	dB	1-5 ± 0.5	6-30 ± 10%
Wavelength operation	nm	1310 and 1550	
Thermal age	dB	UPC = 55 and APC = 60	
Operating temperature	°C	-40 to 85	

Features

- ▶ Plug-in type package
- ▶ Accurate attenuation
- ▶ Ultra low back reflection
- ▶ Available with SC, FC, LC and MU packages
- ▶ Flat response over all wavelengths
- ▶ Environmentally Stable
- ▶ Quick Delivery
- ▶ RoHS compliant
- ▶ Qualified to GR326 Telcordia standards



Product Range

Description	Part Number
SC	Contact Sales
FC	Contact Sales
LC	Contact Sales
MU	Contact Sales

Optical Fanout

Optical Fanout

With the increasing density of many optical networks, Cmatic offers the optical fanout. This is a compact pre-terminated solution to fit small spaces for optical fibre. The fanout product is designed to take the complication out of splicing and managing optical fibres within the network. Each of the fibres are colour coded for ease of use and pre-terminated.

Applications

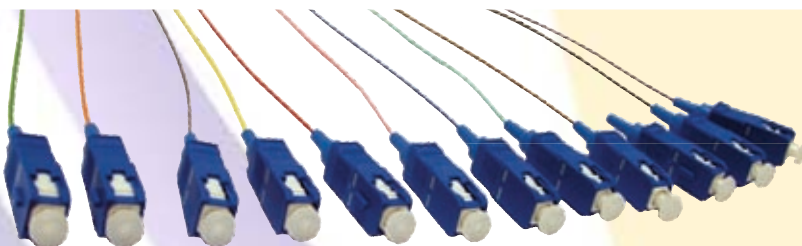
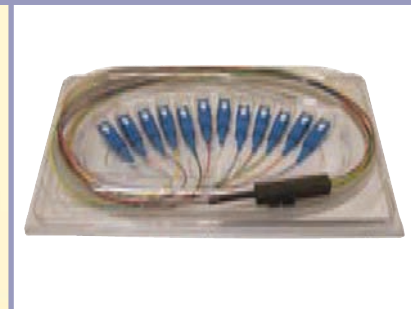
- ▶ DWDM
- ▶ AWG (Array Wave Guide)
- ▶ Telecommunication Networks
- ▶ Power Monitoring
- ▶ PON
- ▶ Equipment

Features

- ▶ Easy to connect and distribute
- ▶ Compact and coordinated design
- ▶ High performance
- ▶ Ruggedised tubing
- ▶ Mounting points on fanout
- ▶ Pre-terminated

Specifications

Parameter	Test	Value
Insertion Loss		0.3dB
Return Loss		>55dB and >65dB (APC)
Vibration	10-55Hz	0.3dB
Impact	1.5m drop x 8	0.02dB
Thermal age	85°C	0.3dB
Temperature cycling	-40 to 75°C	0.3dB



Product Range

For more information about Cmatic range of High Performance Patchcords, please contact our sales team.

Singlemode Patchcords & Pigtails

Singlemode Patchcords & Pigtails

Optical fibre patchcords are a defining factor in ensuring a network performs to the highest level. Patchcord performance is key in guaranteeing a continued low Insertion Loss (IL) and high Return Loss (RL).

Applications

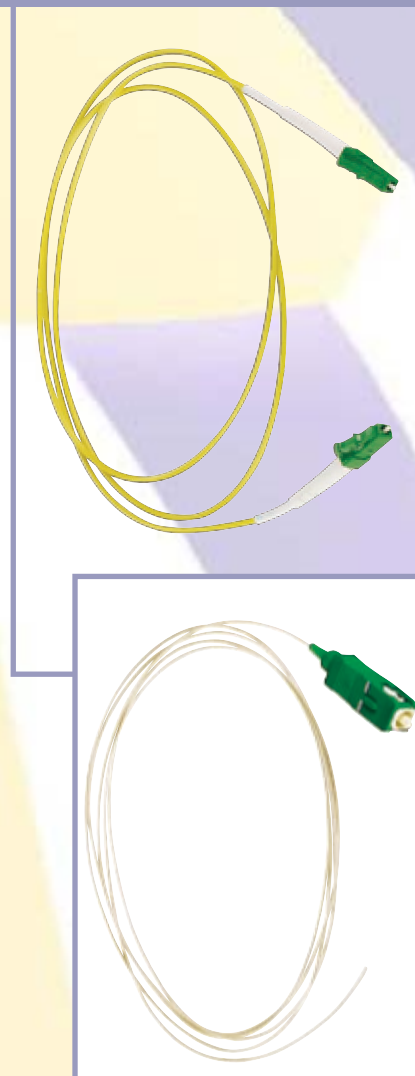
- ▶ FTTx
- ▶ Telecommunications Network
- ▶ Data-communication Network
- ▶ CATV
- ▶ Test and measurement

Features

- ▶ Fast turn around of non-standard requirements
- ▶ Full traceability & test certification supplied with each assembly
- ▶ Ultra polish & Angle polish options available
- ▶ RoHS compliant
- ▶ Single ferrule (ceramic) and multi fibre ferrule component types.

Specifications

Patchcord Specification	
Mechanical	1m to 10m ± 10mm Other Lengths available upon request
Split Length (Duplex)	150mm ± 5mm
Product Packaging	Each patchcord is packaged individually and individually identified for traceability, test certification is supplied for each assembly.
Connector Specification	
Optical Performance	Insertion loss: Max. 0.3 dB Typical 0.2 dB Return Loss: UPC > 50dB, APC >60dB
Optical Performance (MTRJ)	Insertion loss: Max. 0.5 dB
Operating Temperature	-40°C to +85°C
Optical Fibre and Cable Performance	
Attenuation	(1310/1550) 0.38/0.24
Sheath Colour	Yellow
Strength Members	Aramid yarn
Fire Performance	LSZH for Internal/External Applications Flame Resistance IEC 60332-1
Intermateability	Optically and mechanically compatible with all equivalent connectors. Compliant with IEC 61754



Product Range


For ordering information see p58

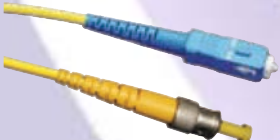
Simplex Patchcords Singlemode

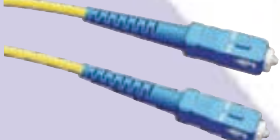
Assembly Specifications


Return loss	Units	Tolerance
UPC (Ultra Polished Connector)	dB	< -55
APC (Angle Polished Connector)	dB	< -65
Insertion Loss		
Multimode Ceramic Ferrule Connectors	dB	0.3
MTRJ Connector	dB	0.5
Singlemode Ceramic Ferrule Connectors	dB	0.3
MTRJ Connector	dB	0.5
Length of Assembly		Tolerance
Less than 0.5m		-0/+0.10m
Between 0.5m and 5m		-0/+0.15m
Greater than 5m		-0/+0.20m

Product Range

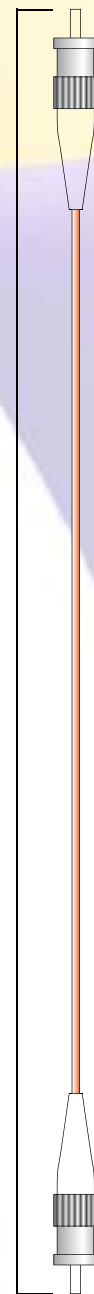
ST/ST	OS1	OS1 - APC	Length
	STST09SYE1	N/A	1m
	STST09SYE2	N/A	2m
	STST09SYE3	N/A	3m
	STST09SYE5	N/A	5m
	STST09SYE10	N/A	10m
	STST09SYExx	N/A	xxm

SC/ST	OS1	OS1 - APC	Length
	SCST09SYE1	SCAST09SYE1	1m
	SCST09SYE2	SCAST09SYE2	2m
	SCST09SYE3	SCAST09SYE3	3m
	SCST09SYE5	SCAST09SYE5	5m
	SCST09SYE10	SCAST09SYE10	10m
	SCST09SYExx	SCAST09SYExx	xxm

SC/SC	OS1	OS1 - APC	Length
	SCSC09SYE1	SCASCA09SYE1	1m
	SCSC09SYE2	SCASCA09SYE2	2m
	SCSC09SYE3	SCASCA09SYE3	3m
	SCSC09SYE5	SCASCA09SYE5	5m
	SCSC09SYE10	SCASCA09SYE10	10m
	SCSC09SYExx	SCASCA09SYExx	xxm

LC/LC	OS1	OS1 - APC	Length
	LCLC09SYE1	LCALCA09SYE1	1m
	LCLC09SYE2	LCALCA09SYE2	2m
	LCLC09SYE3	LCALCA09SYE3	3m
	LCLC09SYE5	LCALCA09SYE5	5m
	LCLC09SYE10	LCALCA09SYE10	10m
	LCLC09SYExx	LCALCA09SYExx	xxm


Simplex Configuration





Length

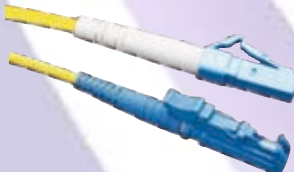
Simplex Patchcords Singlemode


Product Range

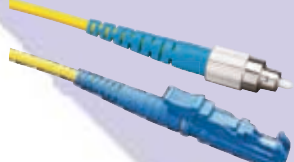
LC/ST	OS1	OS1 - APC	Length
	LCST09SYE1	LCAST09SYE1	1m
	LCST09SYE2	LCAST09SYE2	2m
	LCST09SYE3	LCAST09SYE3	3m
	LCST09SYE5	LCAST09SYE5	5m
	LCST09SYE10	LCAST09SYE10	10m
	LCST09SYExx	LCAST09SYExx	xxm

LC/SC	OS1	OS1 - APC	Length
	LCSC09SYE1	LCASCA09SYE1	1m
	LCSC09SYE2	LCASCA09SYE2	2m
	LCSC09SYE3	LCASCA09SYE3	3m
	LCSC09SYE5	LCASCA09SYE5	5m
	LCSC09SYE10	LCASCA09SYE10	10m
	LCSC09SYExx	LCASCA09SYExx	xxm

LC/MU	OS1	OS1 - APC	Length
	LCMU09SYE1	LCAMU09SYE1	1m
	LCMU09SYE2	LCAMU09SYE2	2m
	LCMU09SYE3	LCAMU09SYE3	3m
	LCMU09SYE5	LCAMU09SYE5	5m
	LCMU09SYE10	LCAMU09SYE10	10m
	LCMU09SYExx	LCAMU09SYExx	xxm


LC/E2000	OS1	OS1 - APC	Length
	LCE209SYE1	LCAE2A09SYE1	1m
	LCE209SYE2	LCAE2A09SYE2	2m
	LCE209SYE3	LCAE2A09SYE3	3m
	LCE209SYE5	LCAE2A09SYE5	5m
	LCE209SYE10	LCAE2A09SYE10	10m
	LCE209SYExx	LCAE2A09SYExx	xxm


LC/FC	OS1	OS1 - APC	Length
	LCFC09SYE1	LCAFCA09SYE1	1m
	LCFC09SYE2	LCAFCA09SYE2	2m
	LCFC09SYE3	LCAFCA09SYE3	3m
	LCFC09SYE5	LCAFCA09SYE5	5m
	LCFC09SYE10	LCAFCA09SYE10	10m
	LCFC09SYExx	LCAFCA09SYExx	xxm


FC/E2000	OS1	OS1 - APC	Length
	FCE209SYE1	FCAE2A09SYE1	1m
	FCE209SYE2	FCAE2A09SYE2	2m
	FCE209SYE3	FCAE2A09SYE3	3m
	FCE209SYE5	FCAE2A09SYE5	5m
	FCE209SYE10	FCAE2A09SYE10	10m
	FCE209SYExx	FCAE2A09SYExx	xxm

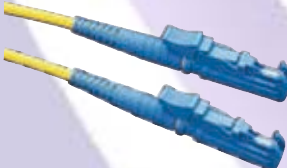
Simplex Patchcords Singlemode

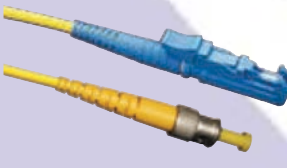
Product Range

<i>FC/FC</i>	<i>OS1</i>	<i>OS1 - APC</i>	<i>Length</i>
	FCFC09SYE1	FCAFCA09SYE1	1m
	FCFC09SYE2	FCAFCA09SYE2	2m
	FCFC09SYE3	FCAFCA09SYE3	3m
	FCFC09SYE5	FCAFCA09SYE5	5m
	FCFC09SYE10	FCAFCA09SYE10	10m
	FCFC09SYExx	FCAFCA09SYExx	xxm

<i>FC/SC</i>	<i>OS1</i>	<i>OS1 - APC</i>	<i>Length</i>
	FCSC09SYE1	FCASCA09SYE1	1m
	FCSC09SYE2	FCASCA09SYE2	2m
	FCSC09SYE3	FCASCA09SYE3	3m
	FCSC09SYE5	FCASCA09SYE5	5m
	FCSC09SYE10	FCASCA09SYE10	10m
	FCSC09SYExx	FCASCA09SYExx	xxm

<i>FC/MU</i>	<i>OS1</i>	<i>OS1 - APC</i>	<i>Length</i>
	FCMU09SYE1	FCAMU09SYE1	1m
	FCMU09SYE2	FCAMU09SYE2	2m
	FCMU09SYE3	FCAMU09SYE3	3m
	FCMU09SYE5	FCAMU09SYE5	5m
	FCMU09SYE10	FCAMU09SYE10	10m
	FCMU09SYExx	FCAMU09SYExx	xxm

<i>E2000/E2000</i>	<i>OS1</i>	<i>OS1 - APC</i>	<i>Length</i>
	E2E209SYE1	E2AE2A09SYE1	1m
	E2E209SYE2	E2AE2A09SYE2	2m
	E2E209SYE3	E2AE2A09SYE3	3m
	E2E209SYE5	E2AE2A09SYE5	5m
	E2E209SYE10	E2AE2A09SYE10	10m
	E2E209SYExx	E2AE2A09SYExx	xxm

<i>E2000/ST</i>	<i>OS1</i>	<i>OS1 - APC</i>	<i>Length</i>
	E2ST09SYE1	E2AST09SYE1	1m
	E2ST09SYE2	E2AST09SYE2	2m
	E2ST09SYE3	E2AST09SYE3	3m
	E2ST09SYE5	E2AST09SYE5	5m
	E2ST09SYE10	E2AST09SYE10	10m
	E2ST09SYExx	E2AST09SYExx	xxm


<i>E2000/SC</i>	<i>OS1</i>	<i>OS1 - APC</i>	<i>Length</i>
	E2SC09SYE1	E2ASCA09SYE1	1m
	E2SC09SYE2	E2ASCA09SYE2	2m
	E2SC09SYE3	E2ASCA09SYE3	3m
	E2SC09SYE5	E2ASCA09SYE5	5m
	E2SC09SYE10	E2ASCA09SYE10	10m
	E2SC09SYExx	E2ASCA09SYExx	xxm

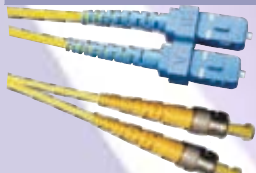
Duplex Patchcords Singlemode

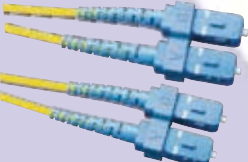
Assembly Specifications


Return loss	Units	Tolerance
UPC (Ultra Polished Connector)	dB	< -55
APC (Angle Polished Connector)	dB	< -65
Insertion Loss		
Multimode Ceramic Ferrule Connectors	dB	≤ 0.3
MTRJ Connector	dB	≤ 0.5
Singlemode Ceramic Ferrule Connectors	dB	≤ 0.3
MTRJ Connector	dB	≤ 0.5
Length of Assembly		Tolerance
Less than 0.5m		-0/+0.10m
Between 0.5m and 5m		-0/+0.15m
Greater than 5m		-0/+0.20m
Split Length B/C		To be 15±2.5cm

Product Range

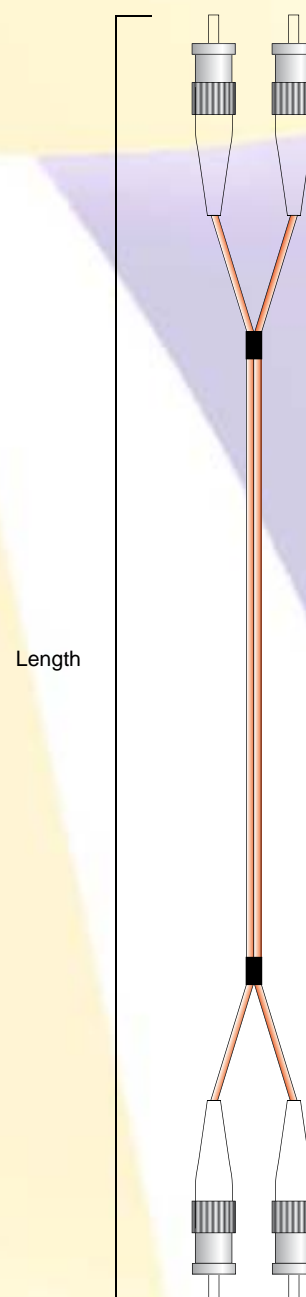
ST/ST	OS1	OS1 - APC	Length
	STST09DYE1	N/A	1m
	STST09DYE2	N/A	2m
	STST09DYE3	N/A	3m
	STST09DYE5	N/A	5m
	STST09DYE10	N/A	10m
	STST09DYE _{xx}	N/A	xxm

SC/ST	OS1	OS1 - APC	Length
	SCST09DYE1	SCAST09DYE1	1m
	SCST09DYE2	SCAST09DYE2	2m
	SCST09DYE3	SCAST09DYE3	3m
	SCST09DYE5	SCAST09DYE5	5m
	SCST09DYE10	SCAST09DYE10	10m
	SCST09DYE _{xx}	SCAST09DYE _{xx}	xxm

SC/SC	OS1	OS1 - APC	Length
	SCSC09DYE1	SCASCA09DYE1	1m
	SCSC09DYE2	SCASCA09DYE2	2m
	SCSC09DYE3	SCASCA09DYE3	3m
	SCSC09DYE5	SCASCA09DYE5	5m
	SCSC09DYE10	SCASCA09DYE10	10m
	SCSC09DYE _{xx}	SCASCA09DYE _{xx}	xxm


LC/LC	OS1	OS1 - APC	Length
	LCLC09DYE1	LCALCA09DYE1	1m
	LCLC09DYE2	LCALCA09DYE2	2m
	LCLC09DYE3	LCALCA09DYE3	3m
	LCLC09DYE5	LCALCA09DYE5	5m
	LCLC09DYE10	LCALCA09DYE10	10m
	LCLC09DYE _{xx}	LCALCA09DYE _{xx}	xxm

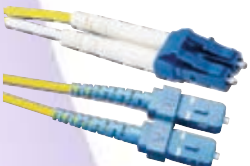
Duplex Configuration




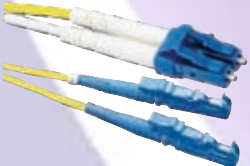
Duplex Patchcords Singlemode


Product Range

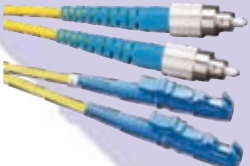
LC/ST	OS1	OS1 - APC	Length
	LCST09DYE1	LCAST09DYE1	1m
	LCST09DYE2	LCAST09DYE2	2m
	LCST09DYE3	LCAST09DYE3	3m
	LCST09DYE5	LCAST09DYE5	5m
	LCST09DYE10	LCAST09DYE10	10m
	LCST09DYExx	LCAST09DYExx	xxm

LC/SC	OS1	OS1 - APC	Length
	LCSC09DYE1	LCASCA09DYE1	1m
	LCSC09DYE2	LCASCA09DYE2	2m
	LCSC09DYE3	LCASCA09DYE3	3m
	LCSC09DYE5	LCASCA09DYE5	5m
	LCSC09DYE10	LCASCA09DYE10	10m
	LCSC09DYExx	LCASCA09DYExx	xxm

LC/MU	OS1	OS1 - APC	Length
	LCMU09DYE1	LCAMU09DYE1	1m
	LCMU09DYE2	LCAMU09DYE2	2m
	LCMU09DYE3	LCAMU09DYE3	3m
	LCMU09DYE5	LCAMU09DYE5	5m
	LCMU09DYE10	LCAMU09DYE10	10m
	LCMU09DYExx	LCAMU09DYExx	xxm


LC/E2000	OS1	OS1 - APC	Length
	LCE209DYE1	LCAE2A09DYE1	1m
	LCE209DYE2	LCAE2A09DYE2	2m
	LCE209DYE3	LCAE2A09DYE3	3m
	LCE209DYE5	LCAE2A09DYE5	5m
	LCE209DYE10	LCAE2A09DYE10	10m
	LCE209DYExx	LCAE2A09DYExx	xxm


LC/FC	OS1	OS1 - APC	Length
	LCFC09DYE1	LCAFCA09DYE1	1m
	LCFC09DYE2	LCAFCA09DYE2	2m
	LCFC09DYE3	LCAFCA09DYE3	3m
	LCFC09DYE5	LCAFCA09DYE5	5m
	LCFC09DYE10	LCAFCA09DYE10	10m
	LCFC09DYExx	LCAFCA09DYExx	xxm


FC/E2000	OS1	OS1 - APC	Length
	FCE209DYE1	FCAE2A09DYE1	1m
	FCE209DYE2	FCAE2A09DYE2	2m
	FCE209DYE3	FCAE2A09DYE3	3m
	FCE209DYE5	FCAE2A09DYE5	5m
	FCE209DYE10	FCAE2A09DYE10	10m
	FCE209DYExx	FCAE2A09DYExx	xxm

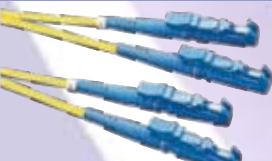
Duplex Patchcords Singlemode

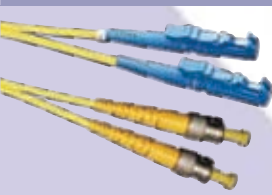
Product Range

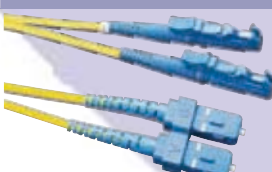
FC/FC	OS1	OS1 - APC	Length
	FCFC09DYE1	FCAFCA09DYE1	1m
	FCFC09DYE2	FCAFCA09DYE2	2m
	FCFC09DYE3	FCAFCA09DYE3	3m
	FCFC09DYE5	FCAFCA09DYE5	5m
	FCFC09DYE10	FCAFCA09DYE10	10m
	FCFC09DYE _{xx}	FCAFCA09DYE _{xx}	xxm

FC/SC	OS1	OS1 - APC	Length
	FCSC09DYE1	FCASCA09DYE1	1m
	FCSC09DYE2	FCASCA09DYE2	2m
	FCSC09DYE3	FCASCA09DYE3	3m
	FCSC09DYE5	FCASCA09DYE5	5m
	FCSC09DYE10	FCASCA09DYE10	10m
	FCSC09DYE _{xx}	FCASCA09DYE _{xx}	xxm

FC/MU	OS1	OS1 - APC	Length
	FCMU09DYE1	FCAMU09DYE1	1m
	FCMU09DYE2	FCAMU09DYE2	2m
	FCMU09DYE3	FCAMU09DYE3	3m
	FCMU09DYE5	FCAMU09DYE5	5m
	FCMU09DYE10	FCAMU09DYE10	10m
	FCMU09DYE _{xx}	FCAMU09DYE _{xx}	xxm


E2000/E2000	OS1	OS1 - APC	Length
	E2E209DYE1	E2AE2A09DYE1	1m
	E2E209DYE2	E2AE2A09DYE2	2m
	E2E209DYE3	E2AE2A09DYE3	3m
	E2E209DYE5	E2AE2A09DYE5	5m
	E2E209DYE10	E2AE2A09DYE10	10m
	E2E209DYE _{xx}	E2AE2A09DYE _{xx}	xxm


E2000/ST	OS1	OS1 - APC	Length
	E2ST09DYE1	E2AST09DYE1	1m
	E2ST09DYE2	E2AST09DYE2	2m
	E2ST09DYE3	E2AST09DYE3	3m
	E2ST09DYE5	E2AST09DYE5	5m
	E2ST09DYE10	E2AST09DYE10	10m
	E2ST09DYE _{xx}	E2AST09DYE _{xx}	xxm


E2000/SC	OS1	OS1 - APC	Length
	E2SC09DYE1	E2ASCA09DYE1	1m
	E2SC09DYE2	E2ASCA09DYE2	2m
	E2SC09DYE3	E2ASCA09DYE3	3m
	E2SC09DYE5	E2ASCA09DYE5	5m
	E2SC09DYE10	E2ASCA09DYE10	10m
	E2SC09DYE _{xx}	E2ASCA09DYE _{xx}	xxm


Pigtails Singlemode


Product Range


ST	OS1	OS1 - APC	Length
	ST09B1	N/A	1m
	ST09B2	N/A	2m
	ST09B3	N/A	3m
	ST09B5	N/A	5m
	ST09Bxx	N/A	xxm

SC	OS1	OS1 - APC	Length
	SC09B1	SCA09B1	1m
	SC09B2	SCA09B2	2m
	SC09B3	SCA09B3	3m
	SC09B5	SCA09B5	5m
	SC09Bxx	SCA09Bxx	xxm

LC	OS1	OS1 - APC	Length
	LC09B1	LCA09B1	1m
	LC09B2	LCA09B2	2m
	LC09B3	LCA09B3	3m
	LC09B5	LCA09B5	5m
	LC09Bxx	LCA09Bxx	xxm

FC	OS1	OS1 - APC	Length
	FC09B1	FCA09B1	1m
	FC09B2	FCA09B2	2m
	FC09B3	FCA09B3	3m
	FC09B5	FCA09B5	5m
	FC09Bxx	FCA09Bxx	xxm

E2000	OS1	OS1 - APC	Length
	E209B1	E2A09B1	1m
	E209B2	E2A09B2	2m
	E209B3	E2A09B3	3m
	E209B5	E2A09B5	5m
	E209Bxx	E2A09Bxx	xxm

MTRJ	OS1	OS1 - APC	Length
	MTRJ09B1	N/A	1m
	MTRJ09B2	N/A	2m
	MTRJ09B3	N/A	3m
	MTRJ09B5	N/A	5m
	MTRJ09Bxx	N/A	xxm

Part numbers as standard refer to Tight Buffered Fibre
For Easy Strip Fibre simply add EASY to the end of the existing codes.

Adapters

An optical fibre adapter or uniter is used to mate two connectors together, usually mounted in a distribution panel or wall box.

The Cmatic optical fibre adapters are precision made to ensure perfect alignment of connectors, reducing insertion loss. In most cases, it is the critical part of the system that aligns the ferrule part of the connectors, keeping the fibres in perfect alignment.

Phosphor bronze sleeves are for general use, while the ceramic versions are normally only used in singlemode low loss environments.

In the case of the MTRJ and MTP®/MPO the alignment is carried out by two small pins fitted to one of the connectors. The adapter is purely to support and lock the connectors together in the distribution panel or wall box.

Applications

- ▶ Fibre distribution
- ▶ LAN and WAN
- ▶ FTTx Applications
- ▶ CATV
- ▶ Testing instruments
- ▶ Telecommunications systems

Features

- ▶ Available as FC, SC, ST, LC, MTRJ, E2000 and MTP®/MPO
- ▶ Available in simplex, duplex, quad (LC) and hybrid versions
- ▶ High precision zirconia or standard phosphor bronze sleeves
- ▶ Low insertion loss
- ▶ High repeatability and stability

Product Range

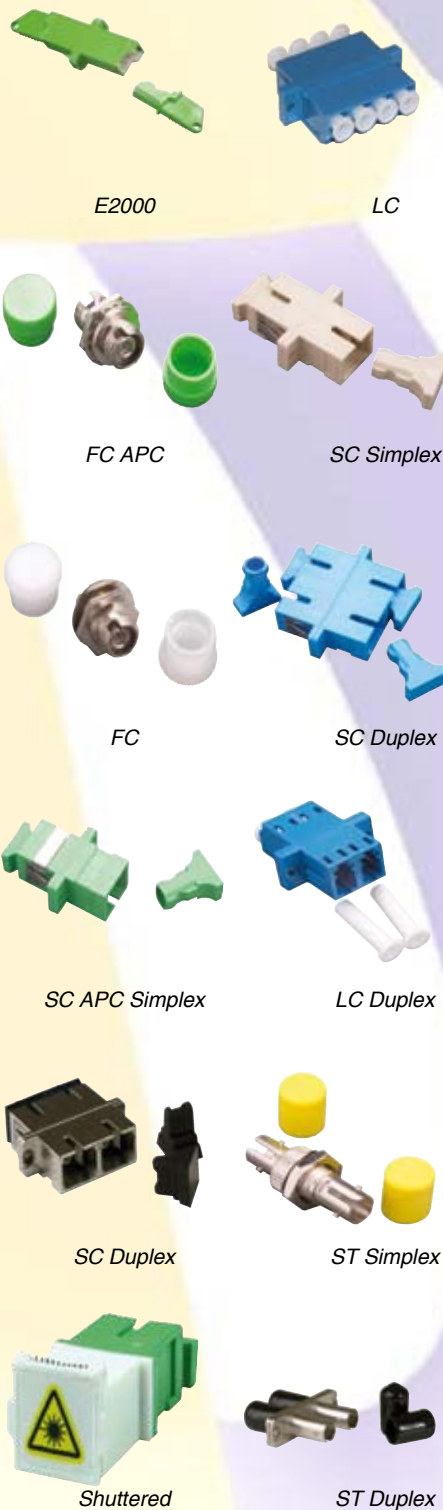
For more information on our range of fibre optic adapters, please contact our sales team

A Range Of Hybrid Adapter Combinations Available:

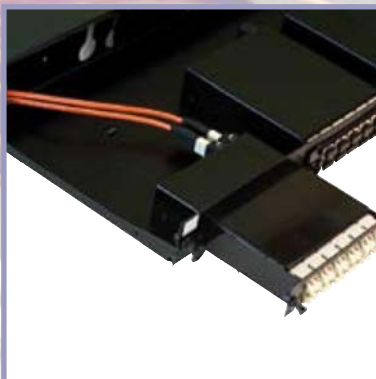


The Cmatic optical fibre adapters are precision made to ensure the perfect alignment of connectors, thus reducing insertion loss. In most cases, the adapter is the critical component of the system that aligns the ferrule part of the connectors, keeping the fibres in perfect alignment.

FibreFab offer a complete range of connections and adapters including DIN, MU, E2000, LC, SC, FC, ST, MPO. Including hybrids, simplex, duplex and quad variants.



MPO Solution



The MPO Plug and Play system is the perfect solution for today's optical fibre installations. The system is designed to enable a fibre network to be installed and commissioned in the shortest possible time. An MPO installation does not require specialist engineers or tools as each component of the Cmatic MPO system is packed with a certificate showing its performance at the time of manufacture. This enables the installer to be sure the system will function from the moment the final part of the system is connected. The MPO system allows for the communication cabinets to be fully assembled in the installers own clean workshops, allowing the simple connection to the installed MPO cable assembly when the system is commissioned.

The high density MPO connector allows simple Plug and Play termination of the fibre backbone. Once installed the backbone needs to have the correct interface to suit the needs of the network hardware. Using the MPO connector on pre-terminated fibre solutions allows you to prepare the distribution units in the comfort of your own workshop. This can be taken a step further by having the distribution cabinets built in a clean facility and only taken to site when the installation is due to go live. MPO pre-termination saves time and reduces the possibility of damage to the fragile optical connectors. The MPO system also reduces the risk of dirt ingress into fibre adapters.

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MPO Components

MPO Cable and Pre-terminated assemblies

MPO cable assemblies pre-terminated for use in building cabling. Simply install the pre-terminated assembly within the building and connect to the rear of an MPO patch panel or ruggedised fan-out.

MPO Ruggedised fan-out

MPO fan-out designed with special rugged cable to withstand direct connections within the communications cabinet. Available in SC, ST, FC, LC & MTRJ terminations.

Optical Fibre MPO System

MPO fan-out 900 Micron

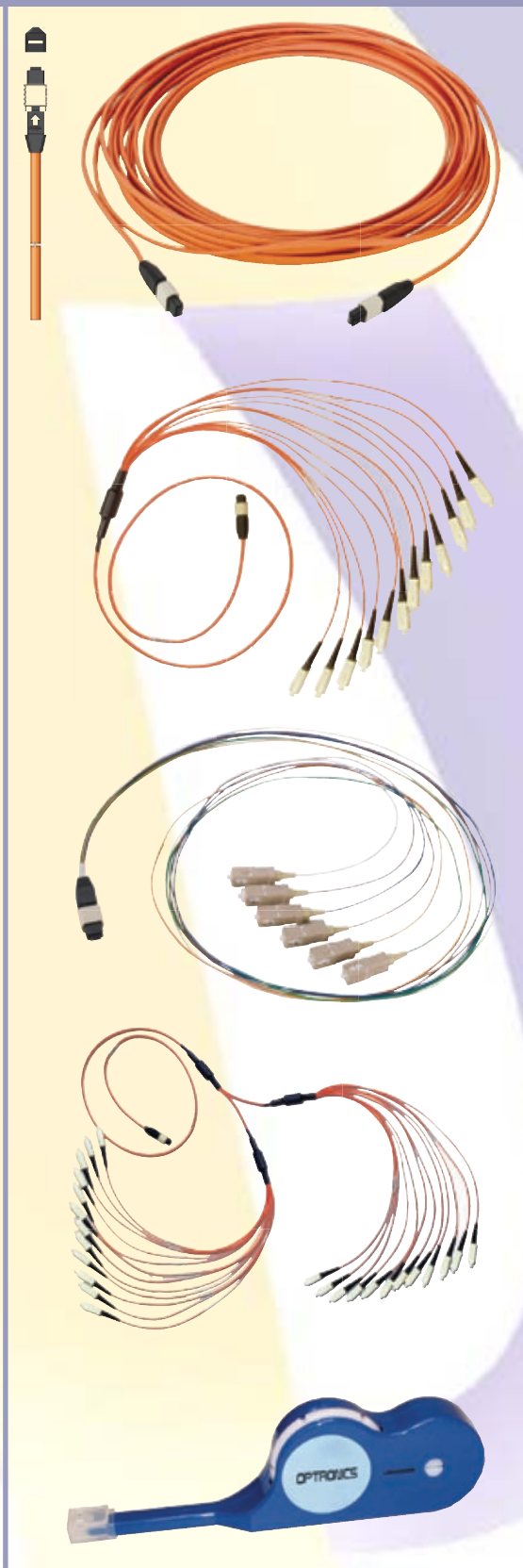
MPO fan-out for use inside patch panels and wall boxes. Available in SC, ST, FC, LC & MTRJ terminations.

24 way MPO fan-out

Another addition to the MPO range from Cmatic is the 24 way MPO fan-out. This comprises of a 24 way MPO connector that can be individually terminated to suit the user requirements. This MPO has the unique advantage of being able to connect up to 24 fibres in one connector. This means that a single fan-out is now capable of connecting a complete 24 way panel which makes fibre management simpler and more aesthetic.

MPO Cleaner

Dry cloth cleaner specifically designed to clean the MPO whilst inside the adapter, face-plate or bulkhead.



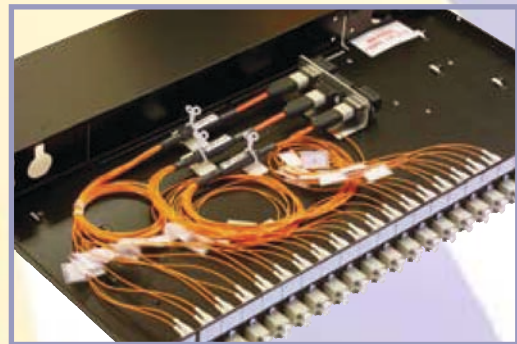
MPO Modules

Optical Fibre MPO System

MPO Loaded Patch Panel

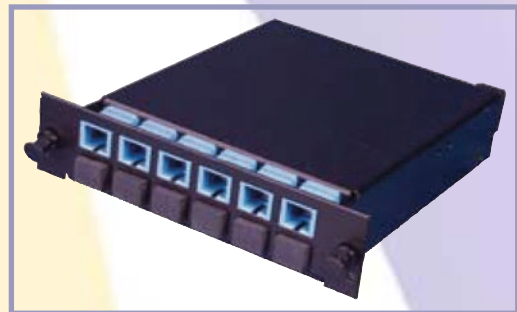
Black sliding tray patch panel pre-loaded for 24 ST, SC & FC and 48 LC or MTRJ connections to MPO systems.

For more information and part numbers contact the Cmatic sales office.



MPO 12 port SC module

Black module pre-wired for 12 SC connections. Designed to fit modular sliding tray panel.



MPO 24 port LC module

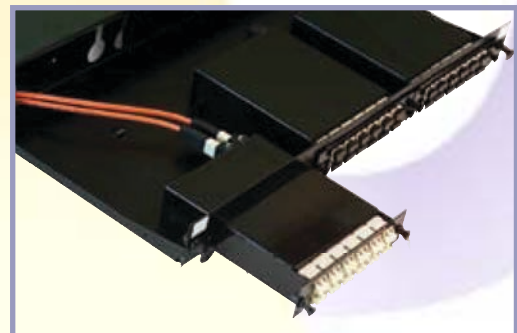
Black module pre-wired for 24 LC connections via two MPO connections. Designed to fit modular sliding tray panel. Modules also available with 12 MTRJ connections.



Modular Patch Panel

19" 1U Black sliding tray patch panel for 3 modules.

Supports up to 36 SC connections with 3 MPO links or 72 MTRJ / LC connections with 6 MPO links.



MTP® Data Centre Cabling Solution

The Data Centre

The number of data centres is increasing globally. Demand for greater processing power, data storage space and high-speed internet access means, choosing the right cabling infrastructure is essential, to ensure that those who rely on IT systems and telecommunications networks get access to information when and where they need it.

The Right Solution

Your network is the heartbeat of your organisation. Cabling infrastructure now has to be designed to deliver mission-critical applications to a converged network that demands reliability, speed and availability. A factory terminated fibre optic cabling solution is a simple, yet scalable, reliable method of deployment. Installation time compared to traditional copper cabling systems can be reduced by up to 75%. Simply pull, plug and go.

The MPO cabling solution from Cmatic is the answer. Utilising the high-performance MTP style connectivity, Cmatic is able to design, manufacture and test a full range of MTP assemblies which all adhere to TIA/EIA and IEC industry standards. The MTP style plugs have introduced a new benchmark of high quality and performance into the MPO market. The connector complies with both IEC-61754-7 and TIA/EIA-604-5 and is fully backward compatible with previous versions of the MPO connector and has these unique enhancements;

A floating ferrule allowing greater mechanical durability d side load. Elliptical guide pin tips providing greater durability by decreasing guide pin hole wear and tear. Easy identification of fibre type with simple colour code.

These features deliver a higher level of reliability and a reduction of potential downtime.

The Right Technology Partner

Cmatic have a commitment and vision to ensure that tomorrow's data centres are supported with fibre optic networking products of the highest technical standard and performance reliability. We ensure that our sales, engineering and manufacturing teams are highly trained and qualified so that you receive the right technical solution tailored to meet your requirements and the requirements of TIA/EIA942(2005), ISO/IEC11801(2002) and EN50174 cabling standards.

MTP® System Solution For High Density Fibre

The MTP cabling system is ideally suited for a high density environment that demands space saving cable density and innovative cable management solutions.

MTP Trunk Cables

Factory terminated and tested.
12 fibres per connector.
Push-pull type mating/un-mating.
Bespoke lengths to customer's requirements.
Fibre types: OS1, OM1, OM2, OM3 and OM3+.

MTP Patch panels

3U patch panel to accept 14 cassettes (up to 336 fibres).
Panels are supplied pre-configured to customer requirements.

Patch leads

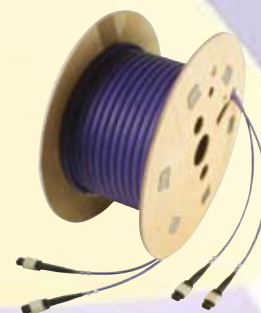
Connector types include MTRJ, SC, ST and LC. Our patch leads are individually tested and come with an accompanying test certificate. They are available with options for unibody strain reliefs and non-contact protective caps.

MTP Fan Out Assemblies

From distribution cable to single fibres.
Available in LC, SC, ST and MT-RJ styles.
Reduces need for patch panels.

MTP Cassettes

Provides transition between MTP and standard interfaces (LC, SC, ST and MT-RJ).
Fits into 1U patch panels (3 cassettes) or 3U patch panels (14 cassettes).



MTP Trunk Cables



MTP Fanout Assemblies



Patch Leads

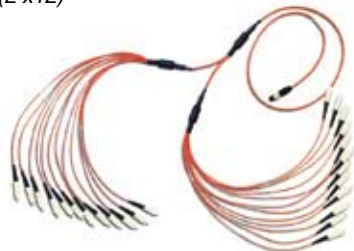


MTP Cassettes

24 Way MTP (2 x12)



MTP to SC Fanout



Break out Pre-Term
with fanout style tails



MTP® Implementation

Typical Data Centre Installation

The Technology

Key Features

- ▶ Installation is simple and fast.
- ▶ MTP connectors are robust.
- ▶ Connectors click into their adaptors and are reverse polarity protected.
- ▶ Easy to use cable management solutions.

High density

- ▶ 72 fibres per 1U of space.
- ▶ 12 fibres per Connector.
- ▶ Less cable yields more space in cabinets and cable raceways, giving better airflow.
- ▶ Up to 15,000 fibres per rack.

Reliability

- ▶ Cables terminated and factory tested.
- ▶ State of the art termination processes.
- ▶ Quality controlled at every step.
- ▶ Immune to EMI/RFI.

Low cost of ownership

- ▶ Reduces labour cost and saves time on installation and testing.
- ▶ Reduces cost of consumables and space requirements for cabinets.

Scalability

- ▶ Future proof network infrastructure, to protect your investment.
- ▶ Supports 10/100-1Gbps ethernet and fibre channel standards.
- ▶ Singlemode capability beyond 10Gbps.

Scalability

- ▶ Modular systems designed for the fastest moves, adds and changes.
- ▶ Designed for simple and easy handling, installing and testing.

Tailored Solutions

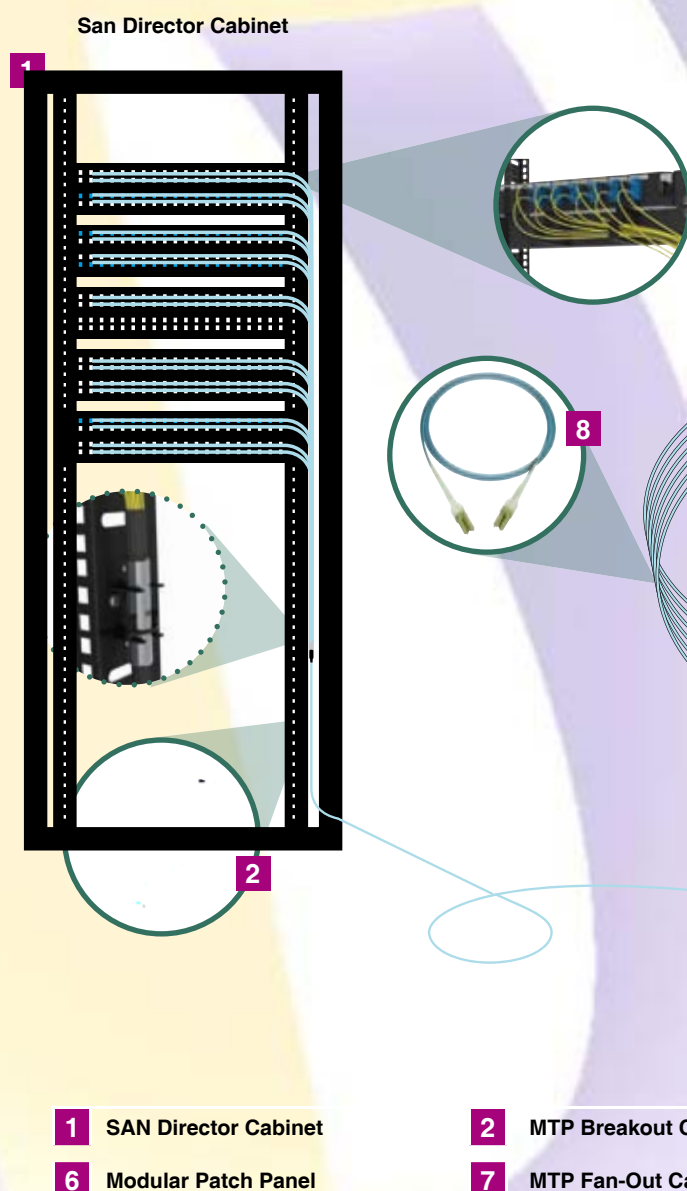
The modular nature of our MTP system means it is totally flexible. At Cmatic we understand there is no such thing as a “standard” installation. In Data Centres there are many different cable routes, requiring varying cable lengths, not to mention the different polarity configurations that may be required. We can supply factory tested products tailored to your requirements including helping you to plan your space and physical layouts to maximum space efficiency with potential for growth and flexibility in the future. From the smallest project to multi-site installations we will deliver the right solution for you, on time and ready to install.

Patch panels and cassettes configured and labelled to meet your needs.

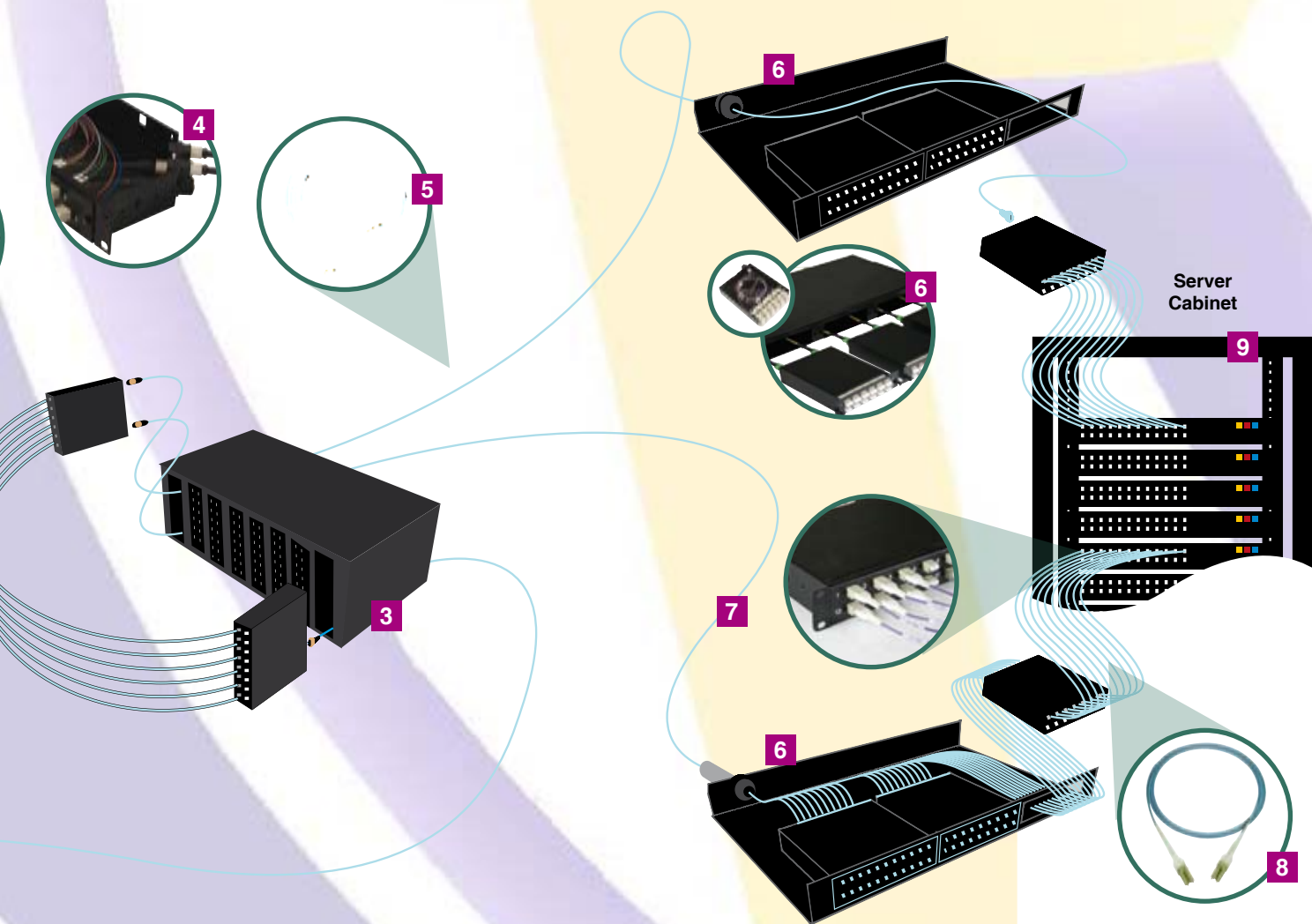
Trunk cables and ruggedised fan out assemblies are made to the lengths you need.

Bespoke packaging of products to suit your requirements.

Example Architecture



MTP® Implementation



Cable
Cable

3 MTP Modular Patch Panel

4 MTP Slimline Patch Panel

5 MTP Trunk Cable

8 Unibody Patch Cord

9 Server Cabinet

State Of The Art Manufacturing

At all of our manufacturing facilities we have the advantage of both expertise and advanced technology. Our manufacturing processes are unique and controlled at every stage.

From our extensive stocks we are able to cut cable to any length and terminate, test and label every connection to suit your requirement.

Equipment

Domaille Engineering HDC-5100 Fibre Polishing Machine.

The HDC-5100 is recognized as the industry's leading high-performance Polishing machine. Complemented by precision polishing plates holders designed for MT ferrules.

The result is high throughput, high-performance consistent MPT®/MPO polished ferrule end faces.



Norland Advantage Multifibre Array Interferometer.

Norland's industry leading equipment provides verification of our MPT®/MPO polishing processes. The Interferometer guarantees that all Parameter of the polished MT ferrule complies and exceeds the MTP®/MPO industry standards.



EXFO IQS-610P tester.

The EXFO multi channel testers underwrite our ability to provide high-performance optical cable assemblies and optical test data. The flexibility of the tester provides the complete spectrum of optical testing required for complex and high fibre count cable assemblies.



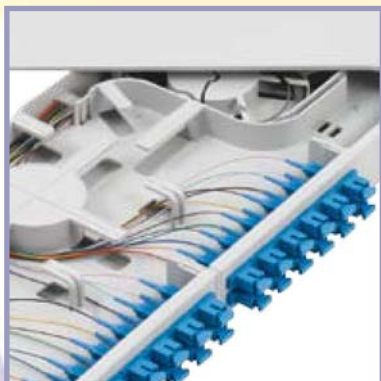
The Future - Parallel Optics

The requirement for greater bandwidth in data centres increases daily. Currently we see fibre links being run at speeds in excess of 10 gigabits per second performance, parallel optics is a way to increase this performance through put.

Typically data is transmitted over one fibre and received on another. Parallel optics uses multiple fibres to both transmit and receive data simultaneously. In a typical application one byte of information is split into bits and each bit is then coded and sent across individual fibres, it is then decoded and put back together at the other end, although there are many methods of doing this. Using parallel optics it is easily possible to achieve 30 gigabits per second throughput. With new interface cards such as QSFP (quad small form pluggable), POP4 (pluggable optics 4-channel) and SNAP12 (12 channel parallel pluggable optics) the technology is developing rapidly and becoming ever more popular in telecommunications and computing.

The MPT®/MPO connector is the connector of choice for parallel optics..

Fibre Management



The Cmatic fixed and sliding tray optical fibre patch system in its basic form is supplied with the panels unloaded ready for you to install the adapter of your choice. The panel can also be pre-loaded complete with the required adapter and simple splice management kit, or supplied with pre-terminated cable to meet your project needs.

Cmatic offers a comprehensive range of management products for both standard installation practises and custom installations. The standard range includes a fixed/sliding patch panel range, fibre distribution hub and wall-mount boxes. These have all the necessary features for maintaining fibre bend radius and are able to use all industry standard types of connector. Cmatic also has in-house engineering skills so that custom solutions can be designed for our customers needs. Cmatic engineers will generate drawings based on modification of our existing range and offer consultation through to design of custom products.

<i>Pivot Patch Panels</i>	<i>72</i>
<i>Sliding Patch Panels</i>	<i>74</i>
<i>Modular Patch Panels</i>	<i>75</i>
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<i>Patch Panel Accessories</i>	<i>79</i>

Plastic Pivot Patch Panel

24 Port Swing Out Splicing & Patching Shelf

The Cmatic 24 Fibre Swing Out Splicing and Patching Shelf is a plastic 1U shelf that allows the connection of up to 24 fibres onto an adapter panel. The shelf is compatible with 19" and ETSI racks. Cables enter at the rear of the shelf on the left hand side and pigtails exit the unit from the front face. The shelf is supplied either empty, in kit format, or with the pigtails and adapters pre-installed.

Features

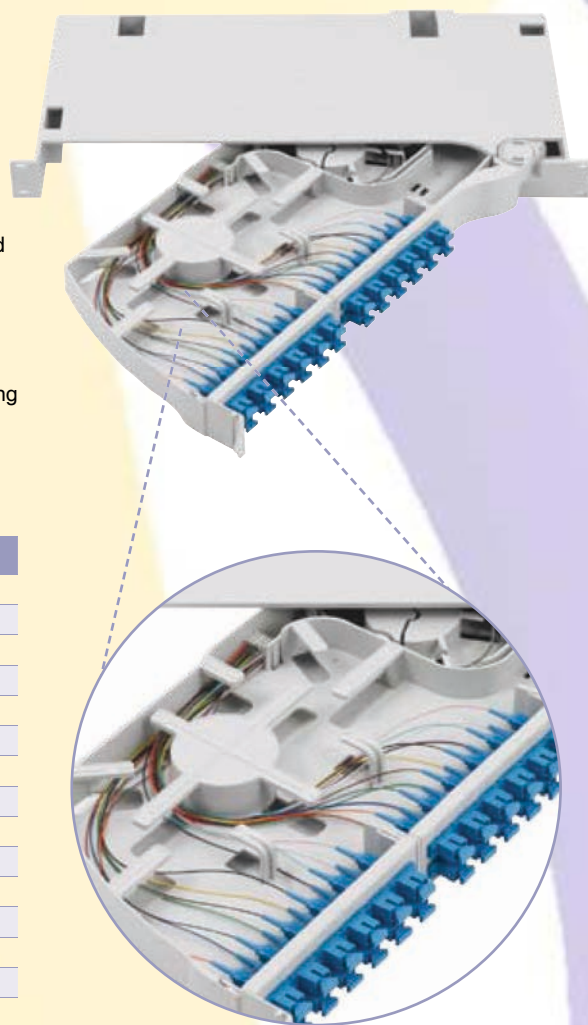
- ▶ High density, low cost, compact design for up to 24 fibres
- ▶ SC, FC, E2000, LC, ST connector types
- ▶ Cable anchor on the rear of the unit using cable anchor plate supplied
- ▶ Constructed from high strength fire retardant plastic to give light weight solution
- ▶ Supplied in either kit format, pre- loaded or as an empty unit
- ▶ All fibres positively managed to a 30mm minimum bend radius
- ▶ Shelf pivots outwards for easy access to the routing area
- ▶ Shelf can be used as a patch only solution and allows excess cable lengths to be stored
- ▶ Stackable splice bay allows easy upgrade to splicing capacity
- ▶ Shelf offers the ability to terminate up to 2 cables and allows through splicing of fibres

Capability

Available with FC, SC, LC and MU connector styles offering UPC or APC finish providing ultra low return loss. The Cmatic range of attenuators are fabricated in a high tech. facility fully equipped with clean rooms and state of the art measurement equipment.

Specifications

Parameter	Unit	Detail
Number of splice trays		1
Maximum fibre capacity		24
Maximum cable diameter	mm	18
Required space envelope	mm	(W) 481 X (D) 230 X (H) 44
Operating temperature	°C	20 to 50
Material		High impact polystyrene
Colour		Light grey (RAL 9016)
Testing:		
Optical		Tested 1310nm, 1550nm, 1625nm
Vibration		IEC 600068-2-6:1995
Shock		IEC 60068-2-27:1987
Packing dimensions	mm	(W) 530 X (D) 330 X (H) 80
Packed weight	kg	1.3
Net weight	kg	1.1



Product Range

For more information on our range of plastic pivot patch panel, please contact our sales team

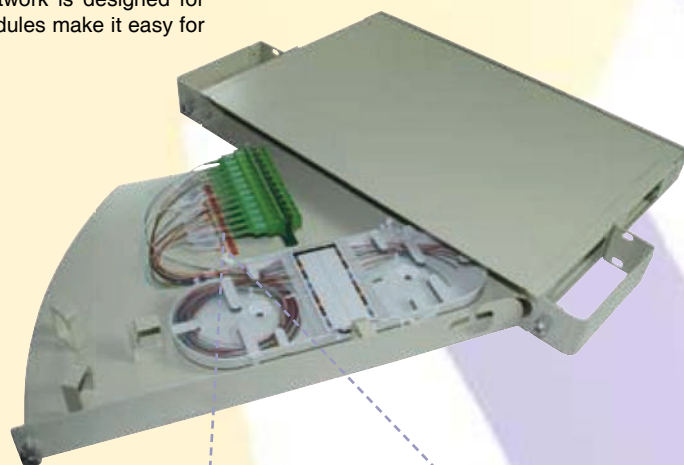
Pivot Patch Panel

Pivot Patch Panel

The patch/splice panels provide fiber optic cable cross-connection and interconnection between outside plant cables and opto-electronic equipment in central offices, LANs and remote terminals. The cassette module integrates connector mounting, splicing and fiber storage together. They are based on one unit modular and totally integrated design which allows users to expand and grow its fiber management system. Especially FDP for FTTH network is designed for accommodating pre-connectorized termination cable and the sliding modules make it easy for connection and storage of the cable.

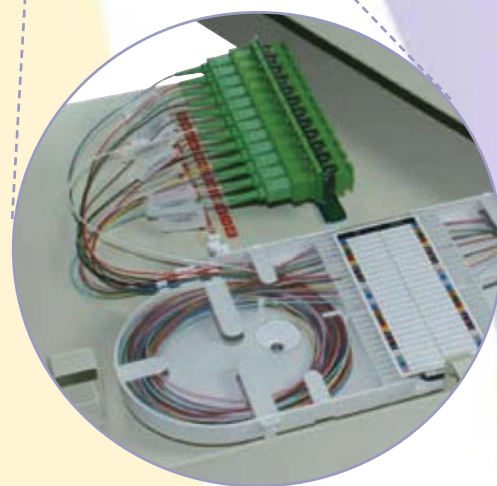
Features

- ▶ Units can be stacked to accommodate future network growth
- ▶ All work can be done from the front of frame
- ▶ Provides fast-efficient installation in tight spaces
- ▶ Total radius control for maintaining transmission integrity
- ▶ The top cover is removable for easy installation
- ▶ Fully controlled loose tube and jumper cord service loops
- ▶ High quality, uniform rust-proof finish with no sharp edges



Specifications

Parameter	Unit	Detail
Number of splice trays		1
Maximum fibre capacity		12/24C (SC Type), 12C (FC Type)
Cable diameter	mm	Ø8 ~ Ø32
Required space envelope	mm	(W) 483 X (D) 310 X (H) 44
Operating temperature	°C	20 to 50
Material		AL, SPCC
Colour		Beige
Cable type		Loose tube, ribbon
Splice method		Fusion, mechanical
Mounting rack		19" / 21" cabinet rack



Product Range

For more information on our range of plastic pivot patch panel, please contact our sales team

Sliding Patch Panel

S01 Sliding Patch Panel - ST, FC



S02 Sliding Patch Panel - ST, FC



S08 Sliding Patch Panel - Vertical Adapters: SC Duplex, LC Quad



S11 Sliding Patch Panel - Angled Adapters: SC, LC, MTRJ, E2000

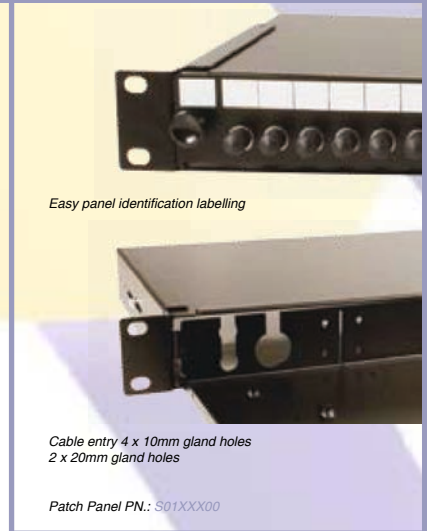


Specifications

Parameter	Value
Width x Depth x Height (mm)	483 x 200 x 44 (1U)
Weight	2.8kg Fully Loaded
Colour	Black, also available in Grey (RAL7035)

Product Range

FCA Singlemode	Part No.	No. of Adapters	SCA Singlemode	Part No.	No. of Adapters
	S01FCA04	4 Adapters		S08SCA04	4 Adapters
	S01FCA08	8 Adapters		S08SCA08	8 Adapters
	S01FCA12	12 Adapters		S08SCA12	12 Adapters
	S01FCA16	16 Adapters			
	S01FCA24	24 Adapters			



Easy panel identification labelling

Cable entry 4 x 10mm gland holes
2 x 20mm gland holes

Patch Panel PN.: S01XXX00

Modular Patch Panel

S13 One Patch Panel for all module combinations



The Cmatic modular patch panel system has been designed to accept all variations of the optronics LGX modules, giving a very versatile 1U panel to suit all applications.



Easy panel identification labelling



Cable entry 4 x 20mm gland holes

Patch Panel PN.: S13XXX00

Product Range

SC Singlemode Simplex



L01 (8 port) Part No.: L01SCS08

SC-APC Singlemode Simplex



L01 (8 port) Part No.: L01SCA08

SC Singlemode Duplex



L01 (8 port) Part No.: L03SCS08

SC-APC Singlemode Duplex



L01 (8 port) Part No.: L03SCA08

LC Singlemode Duplex



L01 (8 port) Part No.: L01LCS08

LC-APC Singlemode Duplex



L01 (8 port) Part No.: L01LCA08

LC Quad Singlemode



L01 (8 port) Part No.: L03LQS08

MTRJ



L01 (8 port) Part No.: L01MTM08

E2000 Singlemode



L01 (8 port) Part No.: L01E2S08

E2000-APC Singlemode



L01 (8 port) Part No.: L01E2A08

FC Singlemode



L01 (8 port) Part No.: L02FCS08

FC-APC Singlemode



L01 (8 port) Part No.: L02FCA08

ST Singlemode



L01 (8 port) Part No.: L02STS08

Blank Plate



L01 (8 port) Part No.: L04

Modular Patch Panel

S13 One Patch Panel

for all module combinations
3U fixed chassis version

Specifications

Parameter	Value
Width x Depth x Height (mm)	483 x 200 x 44 (1U)
Weight	2.8kg Fully Loaded
Colour	Black

Product Range

SC Singlemode Simplex



L01 (8 port) Part No.: L01SCS08

SC-APC Singlemode Duplex



L01 (8 port) Part No.: L03SCA08

LC Quad Singlemode



L01 (8 port) Part No.: L03LQS08

E2000-APC Singlemode



L01 (8 port) Part No.: L01E2A08

ST Singlemode



L01 (8 port) Part No.: L02STS08

SC-APC Singlemode Simplex



L01 (8 port) Part No.: L01SCA08

LC Singlemode Duplex



L01 (8 port) Part No.: L01LCS08

MTRJ



L01 (8 port) Part No.: L01MTM08

FC Singlemode



L01 (8 port) Part No.: L02FCS08

Blank Plate



L01 (8 port) Part No.: L04

SC Singlemode Duplex



L01 (8 port) Part No.: L03SCS08

LC-APC Singlemode Duplex



L01 (8 port) Part No.: L01LCA08

E2000 Singlemode

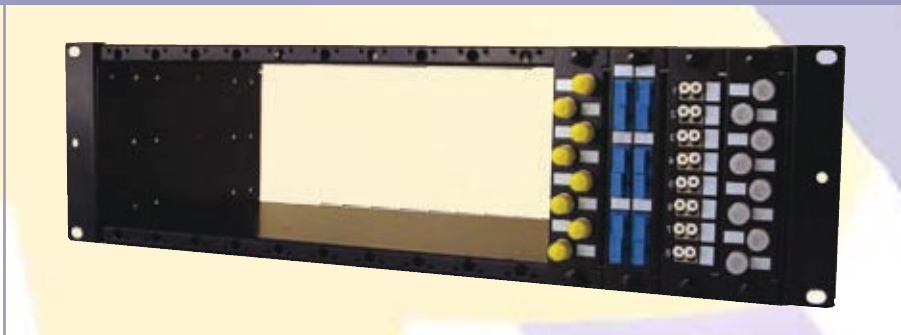


L01 (8 port) Part No.: L01E2S08

FC-APC Singlemode



L01 (8 port) Part No.: L02FCA08



Recessed Sliding Patch Panel

S15 Sliding Patch Panel - Vertical Adapters: SC Duplex, LC Quad



Recessed adapter position




Rear cable entry system


Patch Panel PN.: S15XXX00


Specifications

Parameter	Value
Width x Depth x Height (mm)	483 x 200 x 44 (1U)
Weight	2.8kg Fully Loaded
Colour	Black, also available in Grey (RAL7035)

Product Range

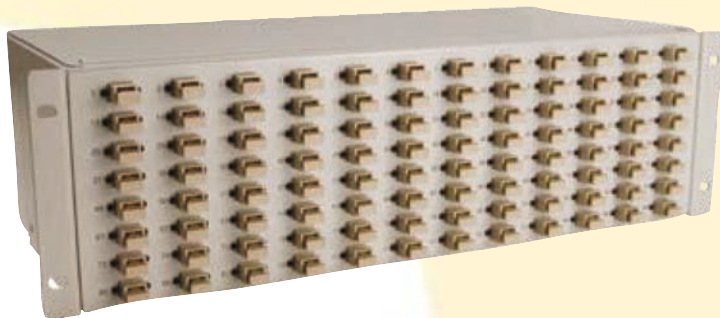
LC Singlemode	Part No.	No. of Adapters
	S15LQS08	8 Adapters
	S15LQS12	12 Adapters
	S15LQS24	24 Adapters

SC Singlemode	Part No.	No. of Adapters
	S15SCS08	8 Adapters
	S15SCS12	12 Adapters
	S15SCS24	24 Adapters

SCA Singlemode	Part No.	No. of Adapters
	S15SCA08	8 Adapters
	S15SCA12	12 Adapters
	S15SCA24	24 Adapters

Fixed Patch Panel

F08 3U Fixed Patch Panel - SC, LC, MTRJ, E2000



Patch Panel PN.: F08XXX00

Specifications

Parameter	Value
Width x Depth x Height (mm)	483 x 300 x 132 (3U)
Weight	4kg Fully Loaded
Colour	Grey (RAL7035)

F02 Fixed Patch Panel - SC, LC, MTRJ, E2000


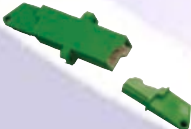


Patch Panel PN.: F02XXX00

Specifications

Parameter	Value
Width x Depth x Height (mm)	483 x 200 x 44 (1U)
Weight	2.8kg Fully Loaded
Colour	Black,

Product Range

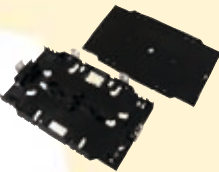
SCA Singlemode Simplex	Part No.	No. of Adapters	E2000 APC	Part No.	No. of Adapters
	F08SCA24	24 adapters		F08E2A24	24 adapters
	F08SCA48	48 adapters		F08E2A48	48 adapters
	F08SCA96	96 adapters		F08E2A96	96 adapters

Patch Panel Accessories

Optional Termination Box Accessories


Splice Tray & Lid

Description	Part Number
Splice tray	SPLICETRAY
Splice lid	SPLICETRAYLID



Splice Tray Splice Holders & Hinges

Description	Part Number
Splice holder for heatshrink splice	SPLICEHOLDER1
Splice holder for crimp splice	SPLICEHOLDER2
Splice tray hinge	BUCKLE




Splice Cassette With Clear Lid

Description	Part Number
2 x 6 way stackable splice cassette	SPLICE12BASEUNIT




Heat Shrink Splice Protectors

Description	Part Number
45mm splice protector	SPLICE45CLEAR
60mm splice protector	SPLICE60CLEAR




Metal Crimp Splice Protector

Description	Part Number
Metal crimp splice protector	SPLICECRIMP



Cable Management Kit

Description	Part Number
Cable management kit	CABLEMANAGEMENT




Panel Blanks

Description	Part Number
ST blank	STBLANK1
SC duplex blank	SCDUPLEXBLANK
SC simplex blank	SCSIMPLEXBLANK

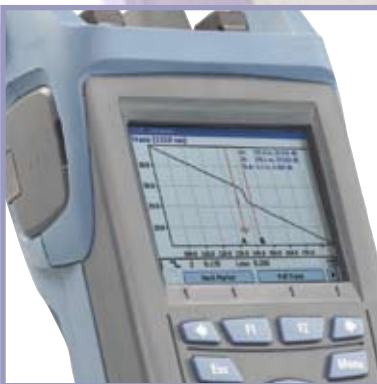


Quick nuts

Description	Part Number
Front-mount cage nut	CAGENUT



Tools & Accessories



To compliment the Cmatic range of fibre management products, Cmatic is pleased to offer a comprehensive and practical range of tools and accessories. On the following pages you will find a selection of equipment designed to assist an installer to install, cut, strip, polish, terminate and test fibre-optic cables.

Cable installation & consumables	81
Tools & accessories	82
Tool kits	83
Test, measurement & splicing	84

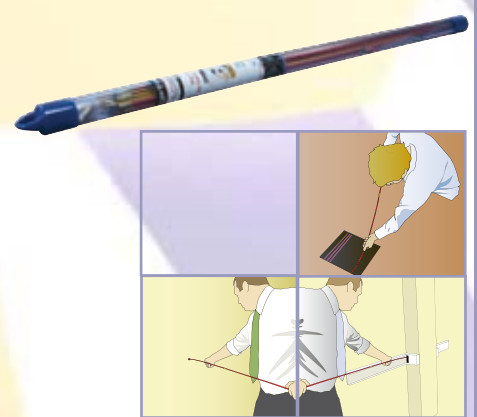
Cable Installation & Consumables

Cable Guide

Cable Guide is an award winning cable routing system designed to make installations faster, easier and neater. It's a winning combination for improved service, profits and professionalism. The Cable Guide system has helped to save over 16 million hours to the electrical industry to date. The real innovation behind the Cable Guide system is that it doesn't just route cable, it's a multi purpose tool that will also allow inspection, illumination and retrieval with the many ingenious and time saving attachments available.

By using the Cable Guide range you can expect to :

- ▶ Cut cable installation time by up to 60%
- ▶ Increase safety, reduce ladder work!
- ▶ Minimise disruption to the work sites
- ▶ Solve installation associated problems
- ▶ Route and conceal cable easily



Cable Guide Super Set

The Super Set is without a doubt, the most comprehensive and best value set sold worldwide. It includes all the basic handling attachments, including the Super Beam, providing a supreme cable routing solution. The Cable Guide is the answer to installers' demands for an extensive multi-purpose cable installation tool.



Description

Cable Guide Super Set

Part Number

PULLROD-UNIKIT

Techlube Cable Lubricant

High performance water polymer lubricant engineered to meet the specific demands of pulling fibre optic cables.



Description

Techlube 20 litres

Part Number

TLFO20

D'GEL Fibre Optic Cleaning Solution

Designed to quickly, easily and effectively remove interstitial cable filling compounds without damage to jacketing, tools, gloves or operators hands, painted surfaces, equipment etc.



Description

DGEL One litre squirt bottle

Part Number

DGEL1

Accessories

10 Piece Screwdriver Set

Hardened hex blades for maximum strength and added torque, tri-lobular shaped handles for extra grip and magnetic tips. All supplied in a zip up canvas case.

Slotted: 3 x 75, 5.5 x 100, 6.5 x 100, 8 x 150mm.

Phillips: #1 x 100, #2 x 100mm.

Pozi: #0 x 75, #1 x 100, #2 x 100mm.

Description

Screwdriver Set 10 Pieces

Part Number

SCREWDRIVERX10



Cable Cutter

These durable cable cutters are designed to strip solid and stranded copper and aluminium conductor. Constructed of high quality carbon steel the preformed rounded jaws automatically position for optimum cutting.

Description

Cable cutter

Part Number

CC60



Armoured Cable Stripper

This professional grade tool is ideal for slitting the corrugated copper, steel or aluminium armour layer on fibre feeder, central tube and stranded loose tube fibre cables as well as other armoured cables. It is able to strip in a longitudinal and circumferential, adjustable from 0.315" (8mm) to 1.125 (28.6mm) cable O.D.

Description

Armoured cable stripper

Part Number

MILLER-37880



Hook and Loop Tie Wraps

A 25m roll of 9mm hook and loop reusable Velcro in black.

Description

Hook and loop tie wraps 25m

Part Number

169-19B



Cage Nuts

These cage nuts allow an easy installation from the front of the rack without having to reach behind.

Description

Cage nuts

Part Number

CAGENUT



Tool Kits

Network Installers Tool Kit

1X	Network cable tester
1X	Precision wire cutters
1X	Wire cutter and stripper
1X	Cable cutter
1X	UTP stripper
1X	Modular crimp tool
1X	Non impact punch down tool with Krone blade
1X	Alternative punch down blade for 66, 110/88
50X	CAT5E RJ45 plugs
1X	Junior hack saw
1X	5m tape measure
1X	Cross head screwdriver
1X	Flat head screwdriver
1X	Label markers and dispenser
1X	Cable ties

Description

Part Number

Network installers tool kit

OPT+INSTALLKIT



Cold Cure Fibre Termination and Inspection Kit

1X	Inspection scope (x200mag)
1X	Fibre optic stripper (tri hole)
1X	Kevlar scissors
1X	Fibre optic crimp tool
1X	Cable ringing tool
1X	Universal stripping tool
1X	Carbide pen scribe
1X	Fluid dispenser
5X	Cold cure epoxy
1X	1.25mm polishing puck
1X	2.5mm polishing puck
5X	1" yellow syringe tips
5X	2ml syringe
1X	Sin bin
15X (5 of each)	Lapping film (0.3 / 1.0 / 5.0µm)
1X	Glass polishing plate
1X Pack (110 sheets)	Lint free tissue

Description

Part Number

Cold cure fibre termination and inspection kit

OPT-COLDKIT



Heat Curing Fibre Termination and Inspection Kit

1X	Termination oven
1X	Inspection scope (x200mag)
1X	Fibre optic stripper (tri hole)
1X	Kevlar scissors
1X	Fibre optic crimp tool
1X	Cable ringing tool
1X	Universal stripping tool
1X	Carbide pen scribe
1X	Fluid dispenser
5X	Heat cure epoxy
1X	1.25mm polishing puck
1X	2.5mm polishing puck
5X	1" yellow syringe tips
5X	2ml syringe
1X	Hospital Sin bin
15X (5 of each)	Lapping film (0.3 / 1.0 / 5.0µm)
1X	Glass polishing plate
1X Pack (100 sheets)	Lint free tissue

Description

Part Number

Heat cure fibre termination and inspection kit

OPT-HEATKIT



Test & Measurement

Optronics ST Multimode Test Kit

The OPTM test kit is an inexpensive solution for testing multimode systems. The kit combines the OPTPM optical power meter and the OPTL S dual optical light source which operates at 850 and 1300nm. Its a great kit for beginners or network owners and can be used for testing premises networks, LAN and gigabit ethernet. Includes optical light source, optical power meter. Protective rubber boots, adaptor cap, 50 and 62.5µm mandrels, users guide and carrying case.



Description	Part Number
ST TEST KIT	OPTMKIT

OPTMS Kit

The OPTMS test kit combines the OPTPM AUTO optical power meter, OPTLS QUAD integrated LED and LASER light source and is ideally suited for testing fibre optic networks with singlemode and multimode cables.



Description	Part Number
Quad Optical Light Source Kit	OPTMSKIT

OPTVFL Visual Fault Identifier

The OPTVFL is a compact but powerful visual fault locator designed to troubleshoot faults on fibre optic cables. Light generated by this unit will escape from sharp bends and breaks in jacketed or bare fibres, as well as poorly mated connectors. It can also identify faults in fibre optic jumper cables, distribution frames, patch panels, and splice trays.



Description	Part Number
OPTVFL Visual Fault Identifier	OPTVFL

Test, Measurement & Splicing

OPT - OTDR

A user friendly multimode and singlemode OTDR specifically designed for testing and trouble-shooting enterprise, campus and access networks. Its robust construction and long battery life make it ideal for use in the field. A single button push starts a test, making it simple to use for beginner or expert.

The result is then shown as a trace or table of events, in full colour, making the location of faults in fibre cables simple. Transfer results to a USB memory stick or direct to PC via the USB port then easily manage the results with the free software provided.

Improve your fibre testing capability by adding the optional power meter, visual fault locator and connector end -face inspection probe making the Cmatic OTDR a truly versatile fibre optic test instrument.



Description	Part Number
OPT - OTDR	Contact Sales

Splice Protectors

Splice protectors are used after a fusion splice has been performed. The protectors are slipped over the joint and heated using the oven located on the splicer.

The polyethylene then shrinks to form a tight hold over the joint which is supported by a steel pin giving extra added strength and protection to the splice joint.



Description	Part Number
60mm Splice Protectors	SPLICE60CLEAR
45mm Splice Protectors	SPLICE45CLEAR

Fusion Splicer

The Cmatic OPT-FSPL fusion splicer uses a core-to-core profile alignment system to provide the best possible termination of optical fibres..

The splicer is small and lightweight and is supplied complete in its own hard carry case making it ideal for use in the field.

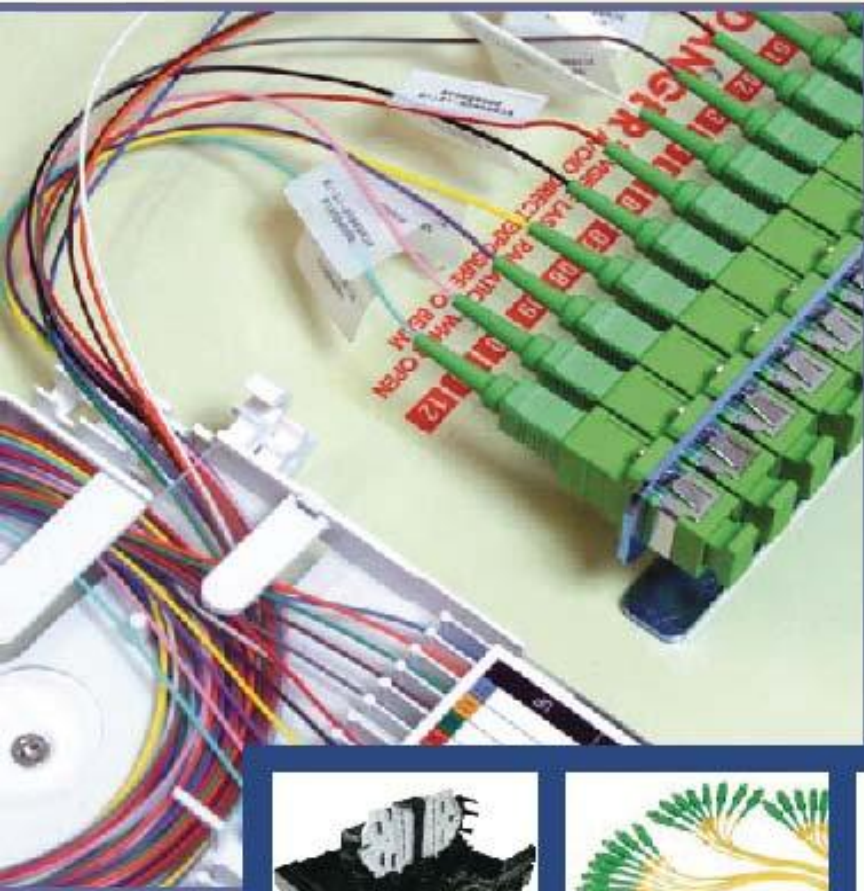
The standard OPT-FSPL-KIT comprises the fusion splicer, cleave tool, battery and charger, AC power supply, spare electrodes, cooling tray buffer stripper and hard carry case with strap.



Description	Part Number
Fusion splicer, AC adaptor and power cord, Battery, charger, spare electrodes, cooling tray, precision cleave tool, buffer stripper, carry case	OPT-FSPL-KIT

CMATIC

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