

# 3M™ Fibre Optic Cable Assemblies



3M provides a variety of single mode and multimode cable assemblies that are compliant with international standards. These can be configured as hybrid assemblies, simplex or duplex jumpers or multi-fibre assemblies. All cables use LSZH rated material and Zirconium ceramic ferrules for the highest transmission quality and reliability.



## Features

- LSZH rated cables
- Zirconium ceramic ferrules
- Connectors and cables according to IEC standards
- PC, UPC and APC end finish
- Pigtailed with semi-tight buffer
- SC and LC assemblies optimal with OM 3 fiber

## Benefits

- Meets European fire load specifications
- High performance and high reliability
- Planning safety
- Flexibility to customer requests
- Easy strip ability
- Meets latest cabling standards

## Specifications:

### Fibre:

Single mode: According to IEC 60793-2-50 Optical fibres part 2-50 Product specifications – sectional spec for class B single mode fibres – type B1.3 (ITU G652D)

Multimode: According to IEC 60793-2-10 Optical fibre part 2-10 Product specifications sectional specification for category A1 multimode fibres – type A1a (50/125) or type A1b(62.5/125) as appropriate. Fibre may be specified as OM3 as defined in ISO 11801.

### Cable:

Low Smoke Zero Halogen: LSZH

Flame propagation: IEC 60332-3C

Smoke density: IEC 61034

Toxic gas emission: CENELEC HD 605 S1 (test method 1 or test method 2)

Corrosive gas: IEC 60754-1

| 3M™ Fibre Optic Cable Specifications |                  |                       |               |                               |                                |                  |                               |                      |
|--------------------------------------|------------------|-----------------------|---------------|-------------------------------|--------------------------------|------------------|-------------------------------|----------------------|
| Single Mode                          |                  |                       |               |                               |                                |                  |                               |                      |
| Code                                 | Number of Fibres | Cable OD Nominal (mm) | Jacket Colour | Loss/Max 1300/1550 nm (dB/km) | Bandwidth 850/1300 nm (MHz-km) | Bend Radius (mm) | Tensile Load (installation N) | Cable Weight (kg/km) |
| <b>Unjacketed</b>                    |                  |                       |               |                               |                                |                  |                               |                      |
| AU                                   | 1                | 0,9                   | White         | 0,4/0,4                       | N/A                            | 50               | 3                             | 0,9                  |
| <b>Jacketed</b>                      |                  |                       |               |                               |                                |                  |                               |                      |
| AT                                   | 1                | 2,9                   | Yellow        | 0,4/0,4                       | N/A                            | 50               | 500                           | 7,8                  |
| BW                                   | 2                | 2,9 x 5,8             | Yellow        | 0,4/0,4                       | N/A                            | 50               | 1000                          | 14,7                 |
| CU                                   | 1                | 2,0                   | Yellow        | 0,4/0,4                       | N/A                            | 50               | 220                           | 3,2                  |
| CV                                   | 1                | 2,0                   | Yellow        | 0,4/0,4                       | N/A                            | 50               | 400                           | 6,7                  |
| Multimode                            |                  |                       |               |                               |                                |                  |                               |                      |
| Code                                 | Number of Fibres | Cable OD Nominal (mm) | Jacket Colour | Loss/Max 1300/1550 nm (dB/km) | Bandwidth 850/1300 nm (MHz-km) | Bend Radius (mm) | Tensile Load (installation N) | Cable Weight (kg/km) |
| <b>50/125</b>                        |                  |                       |               |                               |                                |                  |                               |                      |
| CB                                   | 2                | 2,0                   | Orange        | 3,5/1,0                       | 1500/500 OM3                   | 50               | 220                           | 6,7                  |
| ZJ                                   | 1                | 2,9                   | Orange        | 3,5/1,0                       | 500/800                        | 50               | 500                           | 0,9                  |
| ZK                                   | 1                | 0,9                   | Orange        | 3,5/1,0                       | 500/800                        | 50               | 3                             | 0,9                  |
| ZO                                   | 1                | 0,9                   | Orange        | 3,5/1,0                       | 1500/500 OM3                   | 50               | 3                             | 0,9                  |
| AX                                   | 2                | 2,9 x 5,8             | Orange        | 3,5/1,0                       | 500/800                        | 50               | 1000                          | 16,0                 |
| CT                                   | 2                | 2,0                   | Orange        | 3,5/1,0                       | 500/800                        | 50               | 220                           | 6,7                  |
| <b>62,5/125</b>                      |                  |                       |               |                               |                                |                  |                               |                      |
| AF                                   | 1                | 2,9                   | Orange        | 3,5/1,0                       | 200/500                        | 50               | 500                           | 7,8                  |
| AP                                   | 1                | 0,9                   | Orange        | 3,5/1,0                       | 200/500                        | 50               | 3                             | 0,9                  |
| AQ                                   | 2                | 2,9 x 5,8             | Orange        | 3,5/1,0                       | 200/500                        | 50               | 1000                          | 15,6                 |
| CP                                   | 2                | 2,0                   | Orange        | 3,5/1,0                       | 200/500                        | 50               | 220                           | 6,7                  |

## Specifications:

### Connectors: (Multimode and Single Mode)

ST: IEC 61754-02 Fibre Optic Connector Interfaces Part 2 Type BFOC/2,5 connector family

SC: IEC 61754-04 Fibre Optic Connector Interfaces Part 4 Type SC connector family

FC: IEC 61754-13 Fibre Optic Connector Interfaces Part 13 Type FC-PC connector family

LC: IEC 61754-20 Fibre Optic Connector Interfaces Part 20 Type LC connector family

| 3M™ Fibre Optic Connector Specifications                          |                            |                                 |                            |                            |                                 |                            |                            |
|-------------------------------------------------------------------|----------------------------|---------------------------------|----------------------------|----------------------------|---------------------------------|----------------------------|----------------------------|
| Connector                                                         | SC                         | SC Angled                       | ST                         | FC                         | FC Angled<br>2.0 mm             | LC                         | MT-RJ                      |
| Insertion Loss (dB)<br>(one mated pair)<br><b>Single Mode</b>     | 0,2 average<br>0,5 maximum | 0,2 average<br>0,5 maximum      | 0,2 average<br>0,5 maximum | 0,2 average<br>0,5 maximum | 0,2 average<br>0,5 maximum      | 0,1 average<br>0,25 max    | 0,2 average<br>0,5 maximum |
| <b>Multimode</b>                                                  | 0,2 average<br>0,3 maximum | -<br>-                          | 0,2 average<br>0,3 maximum | 0,2 average<br>0,3 maximum | -<br>-                          | 0,1 average<br>0,3 maximum | 0,2 average<br>0,3 maximum |
| Reflection (dB)<br><b>Single Mode</b>                             | ≤ -55                      | ≤ -70                           | ≤ -55                      | ≤ -55                      | ≤ -70                           | ≤ -55                      | ≤ -30                      |
| <b>Multimode</b>                                                  | ≤ -25                      | -                               | ≤ -25                      | ≤ -25                      | -                               | ≤ -25                      | ≤ -20                      |
| Connection<br>durability (dB)<br>change after 500<br>matings      | <0,2                       | <0,2                            | <0,1                       | <0,2                       | <0,2                            | <0,2                       | <0,3                       |
| Operational<br>Temperature<br>connector only<br>(cable dependent) | -25° to 70°C               | -25° to 70°C                    | -25° to 70°C               | -25° to 70°C               | -25° to 70°C                    | -25° to 70°C               | -10° to 60°C               |
| Storage<br>Temperature                                            | -40° to 85°C               | -40° to 85°C                    | -40° to 85°C               | -40° to 85°C               | -40° to 85°C                    | -40° to 85°C               | -40° to 85°C               |
| <b>Material</b>                                                   |                            |                                 |                            |                            |                                 |                            |                            |
| Connector Housing                                                 | Engineered<br>Resin        | Engineered<br>Resin             | Nickel Plated<br>Zinc      | Engineered<br>Resin        | Engineered<br>Resin             | Engineered<br>Resin        | Engineered<br>Resin        |
| Connector Ferrule                                                 | Zirconia<br>Ceramic        | Zirconia<br>Ceramic<br>8° angle | Zirconia<br>Ceramic        | Zirconia<br>Ceramic        | Zirconia<br>Ceramic<br>8° angle | Zirconia<br>Ceramic        | Composite                  |
| Alignment Sleeve<br><b>Single Mode</b>                            | Zirconia<br>Ceramic        | Zirconia<br>Ceramic             | Zirconia<br>Ceramic        | Zirconia<br>Ceramic        | Zirconia<br>Ceramic             | Zirconia<br>Ceramic        | No alignment<br>sleeves    |
| <b>Multimode</b>                                                  | Metal                      | -                               | Metal                      | Metal                      | -                               | Metal                      |                            |
| Boot                                                              | Thermoplastic<br>Elastomer | Thermoplastic<br>Elastomer      | Thermoplastic<br>Elastomer | Thermoplastic<br>Elastomer | Thermoplastic<br>Elastomer      | Thermoplastic<br>Elastomer | Thermoplastic<br>Elastomer |
| Backbone                                                          | Nickel Plated<br>Brass     | Nickel Plated<br>Brass          | Zinc Alloy                 | Nickel Plated<br>Brass     | Nickel Plated<br>Brass          | Nickel Plated<br>Brass     | Nickel Plated<br>Brass     |
| Flame Retardant                                                   | UL-94 V-O                  | UL-94 V-O                       | UL-94 V-O                  | UL-94 V-O                  | UL-94 V-O                       | UL-94 V-O                  | UL-94 V-O                  |

For more detailed technical data, please refer to the 3M Telecommunications Specifications for Fibre Optic Patch cords and Pigtaills.

## Ordering Information:

| Catalog #                                                  | Product Name                                                     | MOQ | Unit |
|------------------------------------------------------------|------------------------------------------------------------------|-----|------|
| <b>Cable Assemblies - Multimode</b>                        |                                                                  |     |      |
| <b>Patch cords duplex ST - ST Multimode 50/125μ</b>        |                                                                  |     |      |
| BANAN-AX000x                                               | ST-ST patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m      | 12  | EACH |
| <b>Patch cords duplex ST - ST Multimode 62.5/x25μ</b>      |                                                                  |     |      |
| BANAN-AQ000x                                               | ST-ST patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m    | 12  | EACH |
| <b>Patch cords duplex SC - SC Multimode 50/x25μ</b>        |                                                                  |     |      |
| BDBDB-AX000x                                               | SC-SC Patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m      | 12  | EACH |
| <b>Patch cords duplex SC - SC Multimode 50/x25μ OM3</b>    |                                                                  |     |      |
| BDBDB-CB000x                                               | SC-SC Patchcord duplex multimode 50/125μ, OM3, x = 1, 2, 3 or 5m | 12  | EACH |
| <b>Patch cords duplex SC - SC Multimode 62.5/x25μ</b>      |                                                                  |     |      |
| BDBDB-AQ000x                                               | SC-SC Patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m    | 12  | EACH |
| <b>Patch cords duplex ST - SC Multimode 50/x25μ</b>        |                                                                  |     |      |
| BANDB-AX000x                                               | ST-SC Patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m      | 12  | EACH |
| <b>Patch cords duplex ST - SC Multimode 62.5/x25μ</b>      |                                                                  |     |      |
| BANDB-AQ000x                                               | ST-SC Patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m    | 12  | EACH |
| <b>Patch cords duplex ST - MT - RJ Multimode 50/x25μ</b>   |                                                                  |     |      |
| BANMT-CT000x                                               | ST-MT-RJ Patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m   | 12  | EACH |
| <b>Patch cords duplex SC - MT - RJ Multimode 50/x25μ</b>   |                                                                  |     |      |
| BDBMT-CT000x                                               | SC-MT-RJ Patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m   | 12  | EACH |
| <b>Patch cords duplex ST - MT - RJ Multimode 62.5/x25μ</b> |                                                                  |     |      |
| BANMT-CP000x                                               | ST-MT-RJ Patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m | 12  | EACH |
| <b>Patch cords duplex SC - MT - RJ Multimode 62.5/x25μ</b> |                                                                  |     |      |
| BDBMT-CP000x                                               | SC-MT-RJ Patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m | 12  | EACH |
| <b>Patch cords duplex ST - LC Multimode 50/x25μ , OM3</b>  |                                                                  |     |      |
| BANDU-CB0002                                               | ST-LC Patchcord duplex multimode 50/125 OM3, 2m                  | 12  | EACH |
| <b>Patch cords duplex SC - LC Multimode 50/x25μ</b>        |                                                                  |     |      |
| BDBDU-AX000x                                               | SC-LC Patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m      | 12  | EACH |
| <b>Patch cords duplex SC - LC Multimode 50/x25μ OM3</b>    |                                                                  |     |      |
| BDBDU-CB000x                                               | SC-LC Patchcord duplex multimode 50/125μ, OM3, x = 1, 2, 3 or 5m | 12  | EACH |
| <b>Patch cords duplex SC - LC Multimode 62.5/x25μ</b>      |                                                                  |     |      |
| BDBDU-AQ000x                                               | SC-LC Patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m    | 12  | EACH |
| <b>Patch cords duplex LC - LC Multimode 50/x25μ</b>        |                                                                  |     |      |
| BDUDU-AX000x                                               | LC-LC Patchcord duplex multimode 50/125μ, x = 1, 2, 3 or 5m      | 12  | EACH |
| <b>Patch cords duplex LC - LC Multimode 50/x25μ, OM3</b>   |                                                                  |     |      |
| BDUDU-CB000x                                               | LC-LC Patchcord duplex multimode 50/125μ, OM3, x = 1, 2, 3 or 5m | 12  | EACH |
| <b>Patch cords duplex LC - LC Multimode 62.5/x25μ</b>      |                                                                  |     |      |
| BDUDU-AQ000x                                               | LC-LC Patchcord duplex multimode 62.5/125μ, x = 1, 2, 3 or 5m    | 12  | EACH |

## Ordering Information:

| Catalog #                                                         | Product Name                                                                 | MOQ | Unit |
|-------------------------------------------------------------------|------------------------------------------------------------------------------|-----|------|
| <b>Cable Assemblies – Single Mode</b>                             |                                                                              |     |      |
| <b>Patch cords duplex SC - SC Single-mode 9/x25μ</b>              |                                                                              |     |      |
| ADADA-BW000x                                                      | SC-SC Patchcord duplex single-mode 9/125μ, x = 1, 2, 3, 5 or 10m             | 12  | EACH |
| <b>Patch cords duplex SC - LC Single-mode 9/x25μ</b>              |                                                                              |     |      |
| ADADV-BW000x                                                      | SC-LC Patchcord duplex single-mode 9/125μ, x = 1, 2, 3, 5 or 10m             | 12  | EACH |
| <b>Patch cords duplex SC/APC - LC Single-mode 9/x25μ</b>          |                                                                              |     |      |
| AEPDU-BW000x                                                      | SC/APC-LC Patchcord duplex single-mode 9/125μ, x = 1, 2, 3, 5 or 10m         | 12  | EACH |
| <b>Patch cords duplex LC - LC Single-mode 9/x25μ</b>              |                                                                              |     |      |
| ADVDV-BW000x                                                      | LC-LC Patchcord duplex single-mode 9/125μ, x = 1, 2, 3 or 5m                 | 12  | EACH |
| <b>Patch cords simplex ST - ST Singlemode 9/x25μ</b>              |                                                                              |     |      |
| AAMAM-AT000x                                                      | ST-ST Patchcord simplex singlemode 9/125μm, x = 1, 2, 3 or 5m                | 12  | EACH |
| <b>Patch cords simplex ST - SC Singlemode 9/x25μ</b>              |                                                                              |     |      |
| AAMDA-AT000x                                                      | ST-SC/PC Patchcord simplex singlemode 9/125μm, x = 1, 2, 3 or 5m             | 12  | EACH |
| <b>Patch cords simplex SC/PC - SC/PC Singlemode 9/x25μ</b>        |                                                                              |     |      |
| ADADA-AT000x                                                      | SC-SC Patchcord simplex Single-mode 9/125μ, x = 1, 2, 3 or 5m                | 12  | EACH |
| <b>Patchcords simplex SC/APC 8° - SC/APC 8° Singlemode 9/x25μ</b> |                                                                              |     |      |
| AEPEP-AT000x                                                      | SC/APC 8°-SC/APC 8°, Patchcord simplex singlemode 9/125μm, x = 1, 2, 3 or 5m | 12  | EACH |
| <b>Patchcords simplex SC/UPC - SC/UPC Singlemode 9/x25μ</b>       |                                                                              |     |      |
| AEQEQ-AT000x                                                      | SC/UPC-SCUPC Patchcord, simplex, singlemode 9/125, x = 5 or 10m              | 12  | EACH |
| <b>Patchcords simplex FC/PC – FC/PC Singlemode 9/x25μ</b>         |                                                                              |     |      |
| AENEN-AT000x                                                      | FC/PC-FC/PC Patchcord simplex singlemode 9/125m, x = 1, 2, 3, 5 or 6m        | 12  | EACH |
| <b>Patchcords simplex SC/APC 8° - SC/PC Singlemode 9/x25μ</b>     |                                                                              |     |      |
| AEPDA-AT000x                                                      | SC/APC 8°-SC/PC, Patchcord simplex singlemode 9/125μm, x = 1, 2, or 5m       | 12  | EACH |

|                                             |                                            |    |      |
|---------------------------------------------|--------------------------------------------|----|------|
| <b>Pigtails</b>                             |                                            |    |      |
| <b>Pigtails ST Multimode 900μ semitight</b> |                                            |    |      |
| BANOO-ZK0002                                | ST Pigtail Multimode 50/125 green, 2m      | 12 | EACH |
| BANOO-AP0002                                | ST Pigtail Multimode 62.5/125 blue, 2m     | 12 | EACH |
| <b>Pigtails SC Multimode 900μ semitight</b> |                                            |    |      |
| BDBOO-ZK0002                                | SC Pigtail Multimode 50/125 green, 2m      | 12 | EACH |
| BDBOO-ZO0002                                | SC Pigtail Multimode 50/125 green, 2m, OM3 | 12 | EACH |
| BDBOO-AP0002                                | SC Pigtail Multimode 62.5/125 blue, 2m     | 12 | EACH |
| <b>Pigtails LC Multimode 900μ semitight</b> |                                            |    |      |
| BDUOO-ZK0002                                | LC Pigtail Multimode 50/125 green, 2m      | 12 | EACH |
| BDUOO-ZO0002                                | LC Pigtail Multimode 50/125 green, 2m, OM3 | 12 | EACH |

## Ordering Information:

| Catalog #                                        | Product Name                                                        | MOQ | Unit |
|--------------------------------------------------|---------------------------------------------------------------------|-----|------|
| <b>Pigtails</b>                                  |                                                                     |     |      |
| <b>Pigtails ST Single-mode 900µ semitight</b>    |                                                                     |     |      |
| AANOO-AU0002                                     | ST Pigtail Single-mode 9/125 yellow, 2m                             | 12  | EACH |
| <b>Pigtail SC Single-mode 900µ</b>               |                                                                     |     |      |
| ADAOO-AU0002                                     | SC Pigtail Single-mode 9/125 yellow, 2m, semi tight buffer          | 12  | EACH |
| ADAOO-AU0002-TIGHT                               | SC Pigtail Single-mode 9/125 yellow, 2m, tight buffer               | 12  | EACH |
| ADAOO-AU0002-BLUE                                | SC Pigtail Single-mode 9/125, 2m , blue                             | 12  | EACH |
| ADAOO-AU0002-BULK                                | SC Pigtail Single-mode 9/125 yellow, 2m, tight buffer,bulk 240 each | 240 | EACH |
| <b>Pigtail SC/APC Single-mode 900µ semitight</b> |                                                                     |     |      |
| AEPOO-AU0002                                     | SC/APC 8° Pigtail Single-mode 9/125 green, 2m                       | 12  | EACH |
| <b>Pigtail SC/UPC Single-mode 900µ semitight</b> |                                                                     |     |      |
| AEQOO-AU0003                                     | SC/UPC Pigtail Single-mode 9/125, 900 micron, yellow, 3m            | 12  | EACH |
| AEQOO-CU0005                                     | SC/UPC Pigtail Single-mode 9/125, 2,4mm, yellow, 5m                 | 12  | EACH |
| <b>Pigtails FC Single-mode 900µ semitight</b>    |                                                                     |     |      |
| AENOO-AU0002                                     | FC Pigtail Single-mode 9/125 yellow, 2m                             | 12  | EACH |
| <b>Pigtails LC Single-mode 900µ semitight</b>    |                                                                     |     |      |
| ADVOO-AU0002                                     | LC Pigtail Single-mode 9/125 yellow, 2m                             | 12  | EACH |
| AEYOO-AU0002                                     | E2000/APC 8° Pigtail, Single-mode 9/125 micron, yellow, 2m          | 12  | EACH |

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