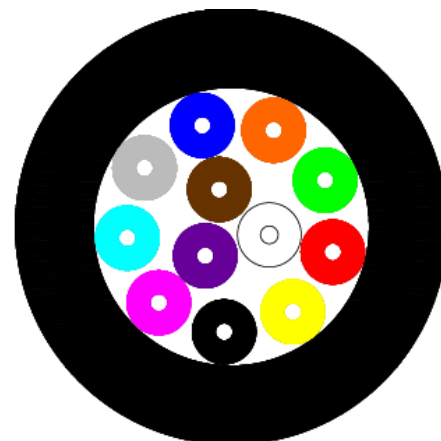


Indoor/Outdoor Light Duty Riser Optical Cable >

This tight buffered multi-fiber optical cable is suitable for applications in local area network (LAN) including FDDI cabling, Ethernet and Token ring.

Each fiber is semi tight coated to a 900 micron diameter, with a durable, protective material and the coating (LSZH buffer material). Each buffered fiber is uniquely color coded. Surrounding the group of buffered fibers are water blocking aramid yarns to provide the sufficient tensile strength to the cable, which effectively avoids damaging the cable during the installation, transportation, operation etc. There are water swellable elements (dry-core) providing longitudinal water tightness. The sheath is made up of a UV stabilized low smoke and fumes zero halogen in compliance with AS 1049.



FEATURES AND ADVANTAGES

900um tight buffered

Water blocking aramid yarns provides sufficient strength to the cable to avoid damage during installation

LSZH sheath

RoHS compliant

UV stabilized

SPECIFICATIONS

Reference information

Commercial Standards:

AS/NZS 11801.1
ACMA - AS/CA S008
IEC 60794-2

FLAME RESISTANCE

AS/NZS IEC 60332.1
IEC 60332-3-24

Mechanical

Tight buffer diameter

4F, 6F, 8F, 12F, 24F: 900 ± 50µm

Cable nominal diameter

4F, 6F: 4.8mm
8F: 5.4mm
12F: 6.2mm
24F: 8.8mm

Cable nominal weight

4F: 20kg/km
6F: 22kg/km
8F: 26kg/km
12F: 33kg/km
24F: 61kg/km

Max. installation tension

4F, 6F, 8F, 12F: 600N
24F: 1100N

Max. crush resistance

Short-term: 500N/100mm
Long-term: 300N/100mm

Min. bending radius

At full load: 20mm x Cable OD
At no load: 10mm x Cable OD

Temperature range

Installation: 0 to +50 °C
Transport & Storage: -10 to +60 °C
Operation: -10 to +70 °C

Physical

Fiber colors (Buffered fiber)

1 - Blue, 2 - Orange, 3 - Green, 4 - Brown,
5 - Gray, 6 - White, 7 - Red, 8 - Black,
9 - Yellow, 10 - Violet, 11 - Pink, 12 - Aqua,
13 - Blue, 14 - Orange, 15 - Green,
16 - Brown, 17 - Gray, 18 - White, 19 - Red,
20 - Black, 21 - Yellow, 22 - Violet, 23 - Pink,
24 - Aqua

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Indoor/Outdoor Light Duty Riser Optical Cable >

SPECIFICATIONS

Optical

OS2

General Characteristics

Material: Silica/germanium doped silica

Index Profile: Step index, matched cladding

Dimensions

Cladding Diameter: $125 \pm 0.7 \mu\text{m}$

Cladding Non-Circularity error: $\leq 1.0\%$

Core/Cladding concentricity error: $\leq 0.5 \mu\text{m}$

Primary Coating

Material: UV Cured acrylic resin

External Diameter (uncolored fiber): $245 \pm 5 \mu\text{m}$

Coating Concentricity error: $\leq 12 \mu\text{m}$

Transmission Characteristics

Mode Field Diameter @ 1310nm: $9.2 \pm 0.4 \mu\text{m}$

Max. Attenuation (un-cabled fiber)

@ 1310nm: $\leq 0.35 \text{ dB/km}$

@ 1383nm: $\leq 0.35 \text{ dB/km}$

@ 1550nm: $\leq 0.21 \text{ dB/km}$

Max. Attenuation (Tight buffer cabled)

@ 1310nm: $\leq 0.4 \text{ dB/km}$

@ 1383nm: $\leq 0.4 \text{ dB/km}$

@ 1550nm: $\leq 0.3 \text{ dB/km}$

@ 1625nm: $\leq 0.3 \text{ dB/km}$

Chromatic Dispersion

Between 1285 to 1330nm: $\leq 3.5 \text{ ps/(nm.km)}$

@ 1550nm: $\leq 18 \text{ ps/(nm.km)}$

@ 1625nm: $\leq 22 \text{ ps/(nm.km)}$

Cabled cut-off wavelength " λ_{cc} ": $\leq 1260 \text{ nm}$

Zero dispersion wavelength (λ_0):

1302 to 1322 ps/(nm².km)

Zero Dispersion Slope (S_0): $\leq 0.092 \text{ ps/(nm}^2\text{.km)}$

Polarisation mode dispersion coefficient

(PMD_{SINGLE DRUM}): $\leq 0.2 \text{ ps}/\sqrt{\text{km}}$

PMD_{LINK}: $\leq 0.08 \text{ ps}/\sqrt{\text{km}}$

Effective Group Index

@ 1310nm: 1.4675

@ 1550nm: 1.4681

Mechanical Characteristics of Primary Fiber

Proof Test for 1 sec (or equivalent): 1%

OM3

General Characteristics

Material (Core/Cladding): Doped silica/silica

Index Profile: Graded index

Dimensions

Core Diameter: $50 \pm 2.5 \mu\text{m}$

Core Non-Circularity: $\leq 6.0\%$

Cladding Diameter: $125 \pm 2.0 \mu\text{m}$

Cladding Non-Circularity: $\leq 1.0\%$

Core / Cladding Concentricity: $\leq 1.5 \mu\text{m}$

Coating / Cladding concentricity: $\leq 12.5 \mu\text{m}$

Primary Coating

Material: UV cured acrylic resin

External Diameter

(uncolored fiber): $245 \pm 10 \mu\text{m}$

(colored fiber): $250 \pm 15 \mu\text{m}$

Transmission Characteristics

Max. Attenuation (un-cabled fiber)

@ 850nm: $\leq 2.4 \text{ dB/km}$

@ 1300nm: $\leq 0.6 \text{ dB/km}$

Max. Attenuation (Tight Buffer cabled)

@ 850nm: $\leq 3.5 \text{ dB/km}$

@ 1300nm: $\leq 1.0 \text{ dB/km}$

Zero Dispersion Wavelength: 1295~1320nm

Zero Dispersion Slope: $\leq 0.101 \text{ ps/(nm}^2\text{.km)}$

Numerical Aperture: 0.200 ± 0.015

Bandwidth

@ 850nm overfilled LED: $\geq 1500 \text{ MHz.km}$

@ 1300nm overfilled LED: $\geq 500 \text{ MHz.km}$

@ 850nm Laser: $\geq 2000^* \text{ MHz.km}$

@ 1300nm Laser: $\geq 500 \text{ MHz.km}$

(*: Effective Modal Bandwidth

Capability: 10Gb/s over 300m)

Effective Group Index

@ 850: 1.482

@ 1300: 1.477

Mechanical Characteristics of Primary Fiber

Proof Test for 1 sec (or equivalent): 1%

OM4

General Characteristics

Material (Core/Cladding): Doped silica/silica

Index Profile: Graded index

Dimensions

Core Diameter: $50 \pm 2.5 \mu\text{m}$

Core Non-Circularity: $\leq 5.0\%$

Cladding Diameter: $125 \pm 1.0 \mu\text{m}$

Cladding Non-Circularity: $\leq 1.0\%$

Core / Cladding Concentricity: $\leq 1.5 \mu\text{m}$

Coating / Cladding concentricity: $\leq 10 \mu\text{m}$

Primary Coating

Material: UV cured acrylic resin

External Diameter

(uncolored fiber): $245 \pm 10 \mu\text{m}$

(colored fiber): $250 \pm 15 \mu\text{m}$

Transmission Characteristics

Max. Attenuation (Tight buffer cable)

@ 850nm: $\leq 3.5 \text{ dB/km}$

@ 1300nm: $\leq 1.0 \text{ dB/km}$

Zero Dispersion Wavelength: 1295~1340nm

Zero Dispersion Slope: $\leq 0.105 \text{ ps/(nm}^2\text{.km)}$

Numerical Aperture: 0.200 ± 0.015

Bandwidth

@ 850nm overfilled LED: $\geq 3500 \text{ MHz.km}$

@ 1300nm overfilled LED: $\geq 500 \text{ MHz.km}$

@ 850nm Laser: $\geq 4700^* \text{ MHz.km}$

@ 1300nm Laser: $\geq 500^* \text{ MHz.km}$

(*: Effective Modal Bandwidth

Capability: 10Gb/s over 550m)

Effective Group Index

@ 850: 1.483

@ 1300: 1.479

Mechanical Characteristics of Primary Fiber

Proof Test for 1 sec (or equivalent): 1%

Indoor/Outdoor Light Duty Riser Optical Cable >

ORDERING INFORMATION

Order No.	SAP No.	Description
AFOIR006OM3	Consult Molex	6 Core OM3 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR012OM3	Consult Molex	12 Core OM3 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR024OM3	Consult Molex	24 Core OM3 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR048OM3	Consult Molex	48 Core OM3 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR096OM3	Consult Molex	96 Core OM3 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR006OM4	Consult Molex	6 Core OM4 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR012OM4	Consult Molex	12 Core OM4 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR024OM4	Consult Molex	24 Core OM4 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR048OM4	Consult Molex	48 Core OM4 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR096OM4	Consult Molex	96 Core OM4 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR006OS2	Consult Molex	6 Core OS2 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR012OS2	Consult Molex	12 Core OS2 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR024OS2	Consult Molex	24 Core OS2 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR048OS2	Consult Molex	48 Core OS2 Indoor/Outdoor Light Duty Riser Optical Fiber Cable
AFOIR096OS2	Consult Molex	96 Core OS2 Indoor/Outdoor Light Duty Riser Optical Fiber Cable

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