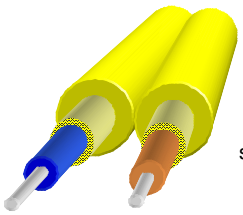
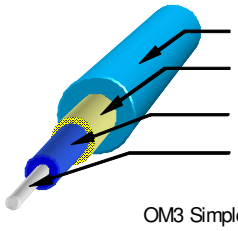
OPTIMAL

Cable Services Pty Ltd



sm Duplex cord



OM3 Simplex cord

TECHNICAL DATA SHEET

OPTICAL FIBRE CORDS

Product Code:

OCYPGR001¶¶ (2.8 PVC sheath – internal Simplex)**
OEYPGR002¶¶ (2.8 PVC sheath – internal Duplex)**
OBYPGR002¶¶ (2.8 LSZH sheath – internal Duplex)**
ODYNPR001¶¶ (2.0 LSZH sheath – Nylon Tight Buffer internal Simplex)**

Description:

ROHS compliant 2.8 mm or 2.0mm simplex and duplex cord. Each cord comprises an individually coloured PVC or Nylon tight buffered optical fibre unit, protected with peripheral aramid and jacketed with flame retardant PVC or LZSH. Sheath printing includes length marking at 1 m intervals.

Applicable Specifications:

AS/ACIF S008, IEC 60794, IEC 60793, AS1049 & AS 3080.

Applications:

Used mainly for interconnecting cable for jumpers, patch cords or pigtails. Ruggedized outdoor versions of the 2.8 mm products are available for lead-in applications (eg OSDN1CGR001BE).

Physical Characteristics:

	Simplex	Duplex
Tight buffer O.D	900 ±50 µm	900 ±50 µm
Nom. O.D.	2.8 or 2.0 mm	2.8/6.1 mm
Nom. weight	9 or 8* kg/km	19 kg/km
Operating Temperature	0℃ to 40℃	0℃ to 40℃
Tensile Strength	200N	400N
Max. Crush resistance	0.5kN/100mm	0.5kN/100mm
Min. bending radius(no load)	30 or 20* mm	30 mm (in preferred plane)
(loaded)	60 or 40* mm	60 mm (in preferred plane)

*applicable to 2.0 mm cords

Colour Sequence for fibres:	BE (blue), OE (orange)
¶¶ Standard colour Codes for Indoor Cables:	OE = 50 µm mm OM2, GY = 62.5 µm mm OM1, YW = sm, AQ= 50 µm mm OM3
Colour for Indoor/Outdoor Cables:	Black

** Represents applicable fibre type, L0 = LWP “OS2” sm G652.d, 1C = ZWP “premium” sm G652.d, 15 = “NZDS” sm G655, 1F = sm “Flex” G657.a, 62 = 62.5 um OM1 multimode, 50 = 50 um OM2 multimode, 53 = 50 um OM3 multimode, 55 = 50 um OM4 multimode

¶¶ Represents the two character colour code: eg. BE, OE, GN ,GB, GY, WE, RD, BK, YW, VT, PK, AQ

Optical Characteristics

- **Single Mode Fibres**

		G652.d/G657.a **zero water peak**
Typical mode field diameter	@1310nm @1550nm	9.2 ±0.4µm/8.9 ±0.4µm 10.4 ±0.5µm./10.0 ±0.5µm
Cladding diameter		125 ± 0.7µm
Max mode field concentricity error		0.5 µm
Cladding non-circularity		≤ 1%
Fibre coating diameter		250 ±10 µm
Group refractive Index	@1310nm @1550nm	1.467 1.468
Temperature Cycling	(-60º + 85º C)	≤ 0.05 dB/km
100 turns, 60 mm dia	@1550nm @1625nm	<0.05 dB <0.05 dB

	Attenuation 1310/1383/1550 nm (dB/km)	Zero Disp^{n} Wavelength (nm)	Slope at ZDW (ps/nm².km)	Typ Ch. Disp. 1310/1550 nm (ps/nm.km)	PMD (ps/√km)
G652.d/G657.a (ZWP)	Max 0.4/.4/.3	1302 -1322	≤0.090	<3.5/<17	≤0.1

- **Multimode Fibres**

		62.5 µm **(OM1)**	**50 µm** **(OM2)**	**50 µm** **(OM3)**	**50 µm** **(OM4)**
Typical Core diameter	(µm)	62.5 ± 2.5	50.0 ± 2.5	50.0 ± 2.5	50.0 ± 2.5
Max Core-Clad Conc Error	(µm)	1	1	1	1
Cladding diameter	(µm)	125 ± 1	125 ± 1	125 ± 1	125 ± 1
Fibre Coating Diameter (Coloured)	(µm)	250 ± 10	250 ± 10	250 ± 10	250 ± 10
Min G-Ethernet transmission distance at 850/1300 nm	(m)	300/550	600/2000	1000/600	1040/600
Min 10G-Ethernet transmission distance at 850/1310 nm	(m)			300/300	530/300

Fibre Type	Attenuation 850 nm (dB/km)	Attenuation 1300 nm (dB/km)	Min Overfilled Bandwidth 850 nm (MHz.km)	Min Overfilled Bandwidth 1300 nm (MHz.km)	Numerical aperture
62.5 µm (OM1)	3.4	1.0	220	500	0.275 ± 0.015
50 µm (OM2)	3.5	1.5	500	500	0.20 ± 0.015
50 µm (OM3)	3.0	1.0	1500	500	0.20 ± 0.015
50 µm (OM4)	3.0	1.0	3500	500	0.20 ± 0.015