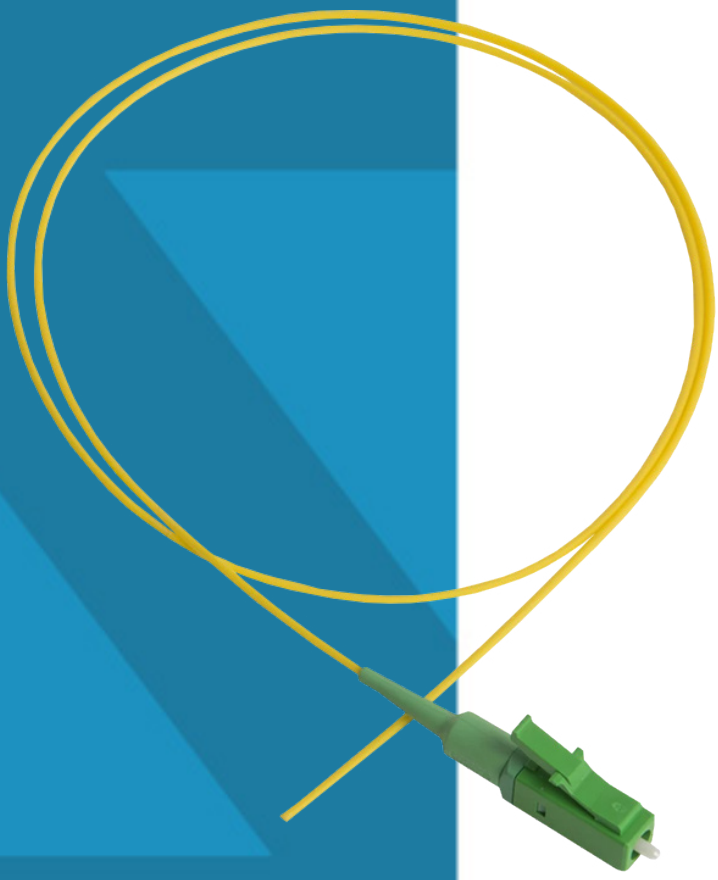


PATCH CORD & PIGTAILS

AR-PGT0.9-LCAPC 3

1. CABLE DESCRIPTION

ARTIC provide complete varieties of optical fiber connector according to customer's requirements. From single core connector to high-density multi-fiber connector. ARTIC all products in the insertion loss and return loss are reaching or higher than all the industrial standards.

2. APPLICATION

- Connection between or within frames, connection between frames and devices.

3. CHARACTERISTICS

- Standard simplex/duplex LC connector, customized SC/FC etc.
- Factory pre-termination, 100% tested to ensure the transmission performance.
- Rapid configuration, reduce installation time.
- Rapid upgrading, support parallel transmission.
- Loose tube structure, OFNR,OFNP and LSZH materials are available for outer sheath.

4. COMPLIED STANDANDS

- Comply with IEC 61754 series.
- Telcodia GR-326-CORE Issue 4 standards.
- Fire resistance comply with low smoking (IEC 61304).
- Halogen free (IEC 60754-1).
- Flame retardant (IEC 60332-3C).
- Corrosion proof (IEC 60754-2).

5. CONNECTOR PERFORMANCE

Connector Type	IL(dB)	RL(dB)	500 times Durability ΔIL (dB)	Temperature Cycling ΔIL (dB)
LC/SC/FC/ST MM	0.22 (Typical) 0.30 (Max)	≥36	≥0.20	≥0.20
LC/SC/FC/ST SM	0.22 (Typical) 0.30 (Max)	PC≥40 UPC≥50 APC≥60	≥0.20	≥0.20

6. ENVIRONMENTAL PERFORMANCE

Fibre Count	Bending Radius (mm)		Temperature (°C)			Package
	Static	Dynamic	Operation	Installation	Storage	
1	10D	20D	-40~+75	-5~+50	-40~+80	PE bag
2	10D	20D	-40~+75	-5~+50	-40~+80	PE bag

7. OPTICAL PERFORMANCE (ITU-G.652D)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 1310 nm	dB/km	≤ 0.34	≤ 0.40
	Attenuation at 1383 nm	dB/km	≤ 0.34	≤ 0.40
	Attenuation at 1550 nm	dB/km	≤ 0.20	≤ 0.30
	Attenuation at 1625 nm	dB/km	≤ 0.23	≤ 0.30
	Zero dispersion wavelength	nm	1312~12	
	Zero dispersion slope	ps/(nm²·km)	≤ 0.092	
	Cable cut-off wavelength λcc	nm	≤ 1260	
	Mode field diameter (MFD) at 1310 nm	μm	8.7~9.5	
	Mode field diameter (MFD) at 1550 nm	μm	9.9~10.9	
	Group Index of Refraction (Typical) at 1310 nm	/	1.466	
	Group Index of Refraction (Typical) at 1550 nm	/	1.467	
	Macro-bend loss(1 turn, 16mm radius) at 1550nm	dB	≤ 0.05	
	Macro-bend loss(100 turns, 25mm radius) at 1310& 1550nm	dB	≤ 0.05	
	Macro-bend loss(100 turns, 30mm radius) at 1620nm	dB	≤ 0.05	

Category	Items	Unit	Description	
			Before cabled	After cabled
Geometrical Characteristics	Cladding diameter	μm	125 ± 0.7	
	Cladding non-circularity	%	≤1.0	
	Coating diameter	μm	245 ~7	
	Coating/cladding concentricity error	μm	≤ 12.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 0.6	

8. OPTICAL PERFORMANCE (ITU-T G.657A2)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 1310 nm	dB/km	≤ 0.35	≤ 0.40
	Attenuation at 1383 nm	dB/km	≤ 0.35	≤ 0.40
	Attenuation at 1550 nm	dB/km	≤ 0.21	≤ 0.30
	Attenuation at 1625 nm	dB/km	≤ 0.23	≤ 0.30
	Zero dispersion wavelength	nm	1300~1324	
	Zero dispersion slope	ps/(nm^2·km)	≤ 0.092	
	Cable cut-off wavelength λcc	nm	≤ 1260	
	Mode field diameter (MFD) at 1310 nm	μm	8.4~9.2	
	Mode field diameter (MFD) at 1550 nm	μm	9.3~10.3	
	Group Index of Refraction (Typical) at 1310 nm	/	1.466	
	Group Index of Refraction (Typical) at 1550 nm	/	1.467	
	Macro-bend loss(1 turn, 7.5mm radius) at 1550nm	dB	≤ 0.2	
	Macro-bend loss(1 turn, 10mm radius) at 1550nm	dB	≤ 0.1	
	Macro-bend loss(10 turns, 15mm radius) at 1550nm	dB	≤ 0.03	
Geometrical Characteristics	Cladding diameter	μm	125 ± 0.7	
	Cladding non-circularity	%	≤0.7	
	Coating diameter	μm	245 ~5	
	Coating/cladding concentricity error	μm	≤ 12.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 0.5	

9. OPTICAL PERFORMANCE (OM1 62.5/125)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 850 nm	dB/km	≤2.7	≤ 3.5
	Attenuation at 1300 nm	dB/km	≤ 0.6	≤ 1.5
	Zero dispersion wavelength	nm	1320~1365	
	Zero dispersion slope at 1295nm~1310nm	/	≤ 0.11	
	Zero dispersion slope at 1300nm~1320nm	/	≤ 0.001 (1438 · λ o)	
	Group Index of Refraction (Typical) at 850 nm	/	1.496	
	Group Index of Refraction (Typical) at 1300 nm	/	1.491	
	Numeral Aperture	/	0.275 ± 0.015 NA	
	Bandwidth at 850 nm	Mhz ·km	≥ 200	
	Bandwidth at 1300 nm	Mhz ·km	≥ 500	
	Macro-bend loss (100 turns, 37.5mm radius) at 1300nm	dB	≤ 0.5	
Geometrical Characteristics	Core diameter	μm	62.5 ± 2.5	
	Cladding diameter	μm	125 ± 1.0	
	Core non-circularity	%	≤5.0	
	Cladding non-circularity	%	≤1.0	
	Coating diameter	μm	245 ±7	
	Coating/cladding concentricity error	μm	≤ 10.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 1.5	

10. OPTICAL PERFORMANCE (OM2 50/125)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 850 nm	dB/km	≤2.3	≤ 3.5
	Attenuation at 1300 nm	dB/km	≤ 0.6	≤ 1.5
	Zero dispersion wavelength	nm	1295~1340	
	Zero dispersion slope at 1295nm~1310nm	/	≤ 0.105	
	Zero dispersion slope at 1300nm~1320nm	/	≤ 0.000375 (1590 · λ o)	
	Group Index of Refraction (Typical) at 850 nm	/	1.482	
	Group Index of Refraction (Typical) at 1300 nm	/	1.477	

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Numeral Aperture	/	0.200 ± 0.015 NA	
	Bandwidth at 850 nm	Mhz ·km	≥ 500	
	Bandwidth at 1300 nm	Mhz ·km	≥ 500	
	Macro-bend loss (100 turns, 37.5mm radius) at 1300nm	dB	≤ 0.5	
	Macro-bend loss(2turns,7.5mm radius) at 1300nm	dB	≤ 1.0	
Geometrical Characteristics	Core diameter	μm	50 ± 2.5	
	Cladding diameter	μm	125 ± 1.0	
	Core non-circularity	%	≤5.0	
	Cladding non-circularity	%	≤1.0	
	Coating diameter	μm	245 ±7	
	Coating/cladding concentricity error	μm	≤ 10.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 1.5	

11. OPTICAL PERFORMANCE (OM3)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 850 nm	dB/km	≤2.3	≤ 3.5
	Attenuation at 1300 nm	dB/km	≤ 0.6	≤ 1.5
	Zero dispersion wavelength	nm	1295~1340	
	Zero dispersion slope at 1295nm~1310nm	/	≤ 0.105	
	Zero dispersion slope at 1300nm~1320nm	/	≤ 0.000375 (1590 · λ o)	
	Group Index of Refraction (Typical) at 850 nm	/	1.482	
	Group Index of Refraction (Typical) at 1300 nm	/	1.477	
	Numeral Aperture	/	0.200 ± 0.015 NA	
	Overfilled Bandwidth at 850 nm	Mhz ·km	≥ 1500	
	Overfilled Bandwidth at 1300 nm	Mhz ·km	≥ 500	
	Effective Modal Bandwidth at 850nm	MHz ·km	≥ 2000	
	Macro-bend loss (100 turns, 30mm radius) at 850nm	dB	≤ 0.5	
	Macro-bend loss (100 turns, 30mm radius) at 1300nm	dB	≤ 0.5	

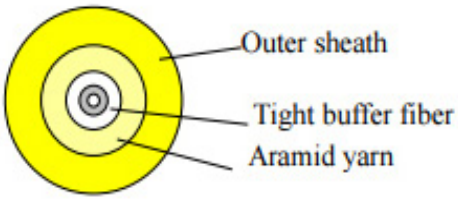
Category	Items	Unit	Description	
			Before cabled	After cabled
Geometrical Characteristics	Core diameter	μm	50 ± 2.5	
	Cladding diameter	μm	125 ± 1.0	
	Core non-circularity	%	≤5.0	
	Cladding non-circularity	%	≤1.0	
	Coating diameter	μm	245 ±7	
	Coating/cladding concentricity error	μm	≤ 10.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 1.0	

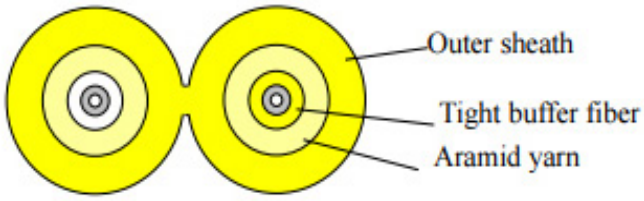
12. OPTICAL PERFORMANCE (BI OM4)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 850 nm	dB/km	≤2.3	≤ 3.5
	Attenuation at 1300 nm	dB/km	≤ 0.6	≤ 1.5
	Zero dispersion wavelength	nm	1295~1340	
	Zero dispersion slope at 1295nm~1310nm	/	≤ 0.105	
	Zero dispersion slope at 1300nm~1320nm	/	≤ 0.000375 (1590 - λo)	
	Group Index of Refraction (Typical) at 850 nm	/	1.482	
	Group Index of Refraction (Typical) at 1300 nm	/	1.477	
	Numeral Aperture	/	0.200 ± 0.015 NA	
	Overfilled Bandwidth at 850 nm	Mhz ·km	≥ 3500	
	Overfilled Bandwidth at 1300 nm	Mhz ·km	≥ 500	
	Effective Modal Bandwidth at 850nm	MHz ·km	≥ 4700	
	Macro-bend loss (100 turns, 30mm radius) at 850nm	dB	≤ 0.5	
	Macro-bend loss (100 turns, 30mm radius) at 1300nm	dB	≤ 0.5	
Geometrical Characteristics	Core diameter	μm	50 ± 2.5	
	Cladding diameter	μm	125 ± 1.0	
	Core non-circularity	%	≤5.0	
	Cladding non-circularity	%	≤1.0	
	Coating diameter	μm	245 ±7	
	Coating/cladding concentricity error	μm	≤ 10.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 1.0	

13. CABLE PERFORMANCE

Cable estructure





Simplex cable

Items		Descriptions
Tight buffer fiber	Buffer material	PVC / LSZH
	Color	White
	Diameter	0.85 ± 0.05mm
Strength member		Aramid yarn
Outer Sheath	Material	PVC/LSZH
	Color code	Yellow
Cable Diameter		1.9 ± 0.2mm

Zipcord cable

Items		Descriptions
Tight buffer fiber	Buffer material	LSZH
	Color	White/Yellow
	Diameter	0.85 ± 0.05mm
Strength member		Aramid yarn
Outer Sheath	Material	LSZH
	Color code	Yellow
Cable Diameter		(4.0±0.3)*(1.9±0.3) mm

14. ORDERING INFORMATION

PATCHCORDS :
ARTIC : AR
PATCHCORDS : PTC

1° CONNECTOR TYPE / TERMINATION : Ej, SCUPC or SCAPC
2° CONNECTOR TYPE / TERMINATION : Ej, LCUPC or LCAPC
LENGHT (Mt) : Ej 2.5M

PIGTAILS
ARTIC : AR
PIGTAILS : PGT

1° CONNECTOR TYPE / TERMINATION : Ej, SCUPC or SCAPC
LENGHT (Mt) : Ej 2.5M