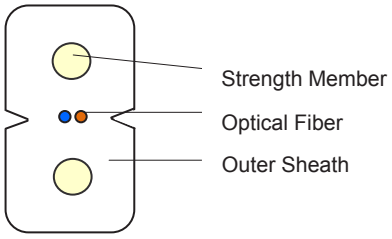
BOW TYPE
DROP CABLE

AR-2PEFS-REC-xF
G657A2

1. CABLE DESCRIPTION

The optical fiber unit is positioned in the centre. Two parallel Fiber Reinforced Plastics (FRP) are placed at the two sides. Then, the cable is completed with a black or color LSZH sheath.



2. APPLICATION

- Internal FTTH applications horizontal and riser, especially suitable for the last leg in FTTH systems.

3. CHARACTERISTICS

- Special low-bend-sensitivity fiber provides high bandwidth and excellent communication transmission property
- Two parallel FRP strength members ensure good performance of crush resistance to protect the fiber
- Simple structure, light weight and high practicability
- Novel flute design, easily strip and splice, simplify the installation and maintenance

OPTICAL FIBER IN CABLE (ITU-G.657A2)

Optical properties of the SM fiber are achieved through a germanium doped silica based core with a pure silica cladding which meets ITU-T G657A2, UV curable acrylate protective coating is applied over the glass cladding to provide the necessary maximum fiber lifetime.
Geometrical and optical characteristics of fiber in cable as the following table:

3. OPTICAL FIBER IN CABLE(ITU-G.657A2)

Category	Items	Unit	Description	
			Before cabled	After cabled
Optical Characteristics	Attenuation at 1310 nm	dB/km	≤ 0.35	≤ 0.35
	Attenuation at 1383 nm	dB/km	≤ 0.22	≤ 0.22
	Attenuation at 1550 nm	dB/km	≤ 0.22	≤ 0.22
	Attenuation at 1625 nm	dB/km	≤ 0.25	≤ 0.25
	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(10turns, 15mm radius) at 1550nm	dB	≤ 0.03	
Geometrical Characteristics	Cladding diameter	μm	125 ± 0.7	
	Cladding non-circularity	%	≤ 0.7	
	Coating diameter	μm	235 ~255	
	Coating/cladding concentricity error	μm	≤ 12.0	
	Coating non-circularity	%	≤ 6.0	
	Core/cladding concentricity error	μm	≤ 0.5	

4. CABLE DIMENSIONS AND CONSTRUCTION

Items		Description
Optical fiber	Fiber count	2
	Color	Blue / Orange
Strength Member	Material	GFRP(Glass fiber reinforced plastics)
	Diameter	0.5 mm
Outer Sheat	Material	LSZH
	Thickness	≥0.4 mm
	Color	White
Cable Diameter		3.0(±0.1)*2.0(±0.1)mm
Cable Weight	Net weight	Approx. 10kg/km

5. MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

Items	Test Method	Descriptions	
Tensile performance	IEC 60794-1-2 Method E1	short-term	200N
		long-term	100N
Crush Resistance	IEC 60794-1-2 Method E3	short-term	2200N/10cm
		long-term	1000N/10cm

Items	Test Method	Descriptions	
Impact Resistance	IEC 60794-1-2 Method E4	No obvious change after test	
Repeat Bending	IEC 60794-1-2 Method E6		
Torsion	IEC 60794-1-2 Method E7		
Cable Bend	IEC 60794-1-2 Method E11		
Temperature Range	IEC 60794-1-2 Method F1	-40℃~+60℃	
Bending Radius	Static	15mm	
	Dynamic	30mm	
Tensile Permofmance	IEC 60794-1-2 Method E1	short term	80N
		long term	40N
Crush Resistance	IEC 60794-1-2 Method E3	short term	1000N/10cm
		long term	500N/10cm

6. PACKING

Cables are coiled on wooden or plastic drum. During transportation, right tools should be used to avoid damaging the package and to handle with ease.
Cables should be protected from moisture; kept away from high temperature and fire sparks; protected from over bending and crushing; protected from mechanical stress and damage.

7. MARKING

Unless otherwise specified, the cable sheath marking shall be as follows:

- Color: Black
- Contents: Cable manufacturer or owner, the year of manufacture, the type of cable, length marking
- Interval: 1m

8. DELIVERY LENGHT

Standard delivery length is 1-2km/drum.