

Multi-core Indoor Micro Cable (GJFV) Distribution Cable

Description

The multi-core indoor micro cable uses several coloured fibres instead of tight-buffered fibres as optical transmission medium, covered with aramid yarn as strength member, then extruded with a PVC sheath. Other sheath materials, like LSZH and TPU, are available on request.

Characteristics

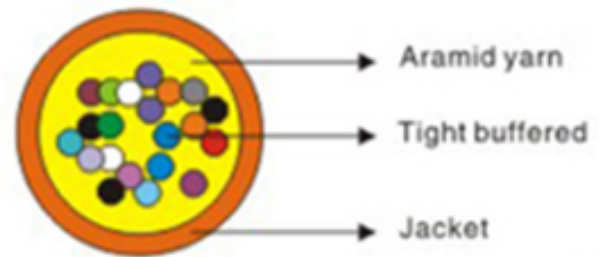
- Small diameter because of using coloured fibres instead of tight-buffered fibres
- High tensile strength due to aramid strength member
- Excellent corrosion resistant, waterproof, flame retardant and environmental- friendly properties of the outer sheath

Application

- Multi-core fibre flexible connector
- Indoor cabling

Standards

Comply with standard YD/T1258.4-2005 and IEC 607942-20/21



Structure and Technical Parameters

Cable Type	Cable Size(mm)	Weight(Kg/km)	Tensile Strength Long/Short Term(N)	Bending Radius Static/Dynamic(mm)	Storage, operating Temperature(°C)
GJFV-02-24Xn	4.5	31.5	30/100	10D/20D	-20 ~ +60

Note: Xn denotes fibre type, D denotes cable diameter

Delivery Length

Standard Reel Length: 2000m; Other lengths available on request

Characteristics	Conditions	Specified Values	Units
Optical Characteristics			
Attenuation	1310 nm	≤ 0.34	[dB/km]
	1383 nm	≤ 0.34	[dB/km]
	1550 nm	≤ 0.20	[dB/km]
	1625 nm	≤ 0.23	[dB/km]
Attenuation vs. Wavelength	1285–1330 nm	≤ 0.03	[dB/km]
Max. α difference	1525–1575 nm	≤ 0.02	[dB/km]
Dispersion coefficient	1285 – 1340 nm	$\geq -3.4 \leq 3.4$	[ps/(nm · km)]
	1550 nm	≤ 18	[ps/(nm · km)]
	1625 nm	≤ 22	[ps/(nm · km)]
Zero dispersion wavelength		1312 ± 12	[nm]
Zero dispersion slope		≤ 0.091	[ps/(nm ² · km)]
Typical value		0.086	[ps/(nm ² · km)]
PMD			
Maximum Individual Fibre		≤ 0.1	[ps $\sqrt{\text{km}}$]
Link Design Value (M=20,Q=0.01%)		≤ 0.06	[ps $\sqrt{\text{km}}$]
Typical value		0.04	[ps $\sqrt{\text{km}}$]
Cable cutoff wavelength λ_{cc}		≤ 1260	[nm]
Mode field diameter (MFD)	1310 nm	8.7 ~ 9.5	[μm]
	1550 nm	9.9 ~ 10.9	[μm]
Effective group index of refraction (N_{eff})	1310 nm	1.466	
	1550 nm	1.467	
Point discontinuities	1310 nm	≤ 0.05	[dB]
	1550 nm	≤ 0.05	[dB]
Geometrical Characteristics			
Cladding diameter		125.0 ± 0.7	[μm]
Cladding non-circularity		≤ 1.0	[%]
Coating diameter		245 ± 7	[μm]
Coating-cladding concentricity error		≤ 12.0	[μm]
Coating non-circularity		≤ 6.0	[%]
Core-cladding concentricity error		≤ 0.6	[μm]
Curl (radius)		≥ 4	[m]
Delivery length		2.1 to 50.4	[km/reel]
Environmental Characteristics (1310 nm, 1550 nm & 1625 nm)			
Temperature dependence			
Induced attenuation at	-60°C to +85°C	≤ 0.05	[dB/km]
Temperature-humidity cycling			
Induced attenuation at	-10°C to +85°C, 98% RH	≤ 0.05	[dB/km]
Watersoak dependence			
Induced attenuation at	23°C, for 30 days	≤ 0.05	[dB/km]
Damp heat dependence			
Induced attenuation at	85°C and 85% RH, for 30 days	≤ 0.05	[dB/km]
Dry heat aging at	85°C	≤ 0.05	[dB/km]
Mechanical Specification			
Proof test		≥ 9.0	[N]
		≥ 1.0	[%]
		≥ 100	[kpsi]
Macro-bend induced attenuation			
1 turn around a mandrel of 32 mm diameter	1550 nm	≤ 0.05	[dB]
100 turns around a mandrel of 50 mm diameter	1310 nm & 1550 nm	≤ 0.05	[dB]
100 turns around a mandrel of 60 mm diameter	1625 nm	≤ 0.05	[dB]
Coating strip force	typical average force	1.5	[N]
	peak force	$\geq 1.3 \leq 8.9$	[N]
Dynamic stress corrosion susceptibility parameter n_2		≥ 20	