

COMPONENT SPECIFICATIONS

2-96 SSF™ Singlemode Distribution Cables

Riser / Plenum / LSZH Cables



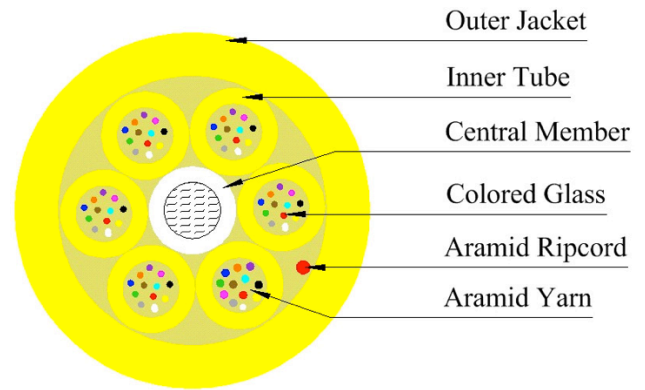
Type OFNR, CSA FT4, and Type OFNP, CSA FT6, and Type OFN-LS, CSA OFN FT4-STI
Product Type G.657.A2, G657.B2, and G.652.D

Cleerline SSF™ advanced optical glass fibers are much stronger, safer, and faster terminating than typical fibers. This distribution style cable provides the ultimate in durability and bend in a very compact size. SSF™ fibers are always protected at the glass level as a result of their integral polymeric coating, increasing both bend and tensile strength to unprecedented levels. Cleerline SSF™ fibers are compatible with all common connector systems on the market for standard 50/125 multimode and 9/125 Singlemode fibers.

Features And Benefits:

- * High mechanical strength and superior fatigue & durability
- * Integral coating eliminates stripping, provides glass protection
- * Bend longevity for 10,000X longer life time than normal fibers
- * Increased safety factor due to the incredible bend insensitivity
- * Glass fiber remains protected at all times from the elements
- * Simplified termination process designed for ease of use
- * Ultra low Attenuation loss on tight bend radius
- * Exclusive 250um Soft peel jacket identifier

Typical Cross Section



CONSTRUCTION

FIBER

Fiber Count = 2-12, 24, 36, 48, 72, 96
9/125 Singlemode Dry w/super-absorbant polymer
250um "Soft Peel" S-Type coating
Color Coding per TIA/EIA 568C

JACKET

PVC moisture resistant Riser Rated / Plenum Rated PVC/
FRNC, LSZH Low Smoke Zero Halogen material
Jacket diameter = Part Number dependent
Yellow jacket - Singlemode fiber
Sequential footage markings*
Aramid Yarns = Kevlar

PHYSICAL DATA

Storage Temperature Range = -40°C to +85 °C
Operating Temperature Range = -20°C to +75 °C
Max Tensile Load for Installation = Put up Dependent
Max Tensile Long Load term = 500(112) N (lbf)
Min. Bend Radius, Unloaded = 10 x OD (10 x 3mm)
Cable Outside Diameter, Nominal = Part # Dependent
Cable Package = Spool
Rating = FT4-Riser / FT6-Plenum / OFN-LS / LSZH
Cut to customer request, spooled

APPLICATIONS

Interbuilding and intrabuilding voice or data communication backbones requiring 3.0mm jacket diameter. Install in ducts, underground conduits or aerial/lashed UL Listed OFNP for installation in plenum airways and general horizontal applications when installed in accordance with the NEC article 770-51 (a) and 770-53 (a). UL listed Type OFNP for installation in ducts, plenums and other spaces used as environmental air returns when installed in accordance with NEC article 770-51 (a) and 770-53(a)

ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 1310 nm and 1550 nm ≤ 0.05 (db/km)
Induced Attenuation - 40°C to +85°C
Watersoak Dependence at 1310 nm and 1550 nm ≤ 0.05 (db/km)
Induced Attenuation at 20°C for 30 days
Damp Heat Dependence at 1310 nm and 1550 nm ≤ 0.05 (db/km)
Induced Attenuation at 85°C, 85%R.H., 30 days
Dry Heat Dependence at 850 nm and 1300 nm ≤ 0.05 (db/km)
Induced Attenuation at 85°C, 30 days

PRODUCT DETAIL

Cleerline SSF™ 2-96 fiber Micro Distribution cable is composed of a single tube or two to six sub units, an optional central member, aramid yarn, an aramid ripcord, and a PVC outer jacket. Each sub-unit consists of 12 colored glass fibers surrounded by aramid yarn with a PVC jacket 2.95mm in diameter. Available in 12 TIA standard colors or special orders.

SSF™ complies or exceeds the ITU-T recommendations G.657 A2, G657 B2 and G.652 D, the IEC International Standard 60793-2-50 type B.1.3 and B.6.A&B Optical Fiber

OPTICAL CHARACTERISTICS*

Attenuation Coefficient	1310 nm	≤ 0.35 (dB/km)
	1550 nm	≤ 0.21 (dB/km)
Mode Field Diameter	1310 nm	$8.6 \pm 0.4 \mu\text{m}$
	1550 nm	$9.7 \pm 0.5 \mu\text{m}$
Cable Cut-off Wavelength		$\leq 1260 \text{nm}$
Zero Dispersion Wavelength		$1310 \text{nm} - 1324 \text{nm}$
Zero Dispersion Slope		$0.092 \text{ps} / (\text{nm}^2 \cdot \text{km})$

BACKSCATTER CHARACTERISTICS

Attenuation Directional Uniformity	≤ 0.03 (dB/km)
Attenuation Uniformity	≤ 0.05 (dB)
Group Index of Refraction	1310 nm 1.467
	1550 nm 1.468

PHYSICAL CHARACTERISTICS

Core / Hybrid Cladding Concentricity Error	≤ 0.5 (μm)
Hybrid Cladding Diameter	125 ± 0.7 (μm)
Hybrid Cladding Non-Circularity Error	≤ 1.0 (%)
Soft Peel Jacket Identifier Diameter	250 ± 0.7 (μm)
Coating Strip Force	≤ 100 (g)
Fiber Curl	≥ 2 (m)
Proof Test	100 (kpsi)
Bend Induced Attenuation	
1550nm 1 turn 10mm radius	≤ 0.3 (dB)
10 turns around a mandrel of 15 mm radius	≤ 0.03 (dB)
1625nm 1 turn 10mm radius	≤ 1.0 (dB)
10 turns around a mandrel of 15 mm radius	≤ 0.2 (dB)

COMPLIANCE

UL Listed OFNR C(UL)US - CSA FT4, - CSA FT6, OFNP C(UL)US - and CSA FT4-STI OFN-LS. RoHS Compliant Directive 2011/65/EU
*Ensured via mini EMBC per TIA/EIA 455-220A and ICEA S-104-696



CABLE CHARACTERISTICS	
Fiber Count	2-12, 24, 36, 48, 72, 96
Outer Jacket Material	Flame Retardant PVC
Sub Units	Flame Retardant PVC
Strength Member	Aramid Yarn
Central Strength Member	Fiber Reinforced Plastic Rod
Coating on Central Strength Member	Flame Retardant PVC

PHYSICAL CHARACTERISTICS	VALUE
Nominal Outer Diameter (mm) 2-12, 24, 36, 48, 72, 96	2.95 / 8.2 / 8.25 / 8.6 / 10.5 / 13.0
Weight (lbs/km) of 2-12, 24, 36, 48, 72	23 / 105 / 130 / 170 / 252 / 334
Minimum Bend Radius, Installation (cm)	4.425 / 12.3 / 12.375 / 12.9 / 15.75 / 19.5
Minimum Bend Radius, Operation (cm)	2.95 / 8.2 / 8.25 / 8.6 / 10.5 / 13.0

PART NUMBERS			
Fiber Count	Riser	Plenum	LSZH
2-12	##D9125SMOS2R	##D9125SMOS2P	##D9125SMOS2L
24	24D9125SMOS2R	24D9125SMOS2P	24D9125SMOS2L
36	36D9125SMOS2R	36D9125SMOS2P	36D9125SMOS2L
48	48D9125SMOS2R	48D9125SMOS2P	48D9125SMOS2L
72	72D9125SMOS2R	72D9125SMOS2P	72D9125SMOS2L
96	96D9125SMOS2R	96D9125SMOS2P	96D9125SMOS2L