

# COMPONENT SPECIFICATIONS

## 2-8 SSF™ Multimode OM4, Breakout Riser / Plenum I/O / LSZH Cables



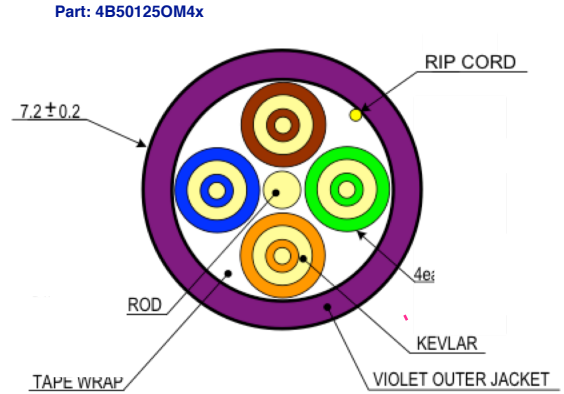
Type OM4, OFNR, CSA FT4 / OFNP, CSA FT6 / LSZH

Cleerline SSF™ advanced optical glass fibers are much stronger, safer, and faster terminating than typical fibers. This breakout style cable provides the ultimate in durability and bend. 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
- \* 10,000x the bend of standard fiber, Fatigue constant (Nd) >30
- \* 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

Number of Fibers = 2,4,6,8  
50/125 Multimode OM4.  
250um "Soft Peel" coating  
Color Coding per TIA/EIA 568C

### JACKET

Riser Rated PVC / Plenum Rated PVC + UV I/O / LSZH  
Unit Diameter by Part # / 2.0mm Subunits, 1 fiber per unit  
Violet jacket = Multimode OM4, ripcord under outer sheath  
Sequential footage markings  
Kevlar (Plenum/LSZH + water blocking yarns Indoor/Outdoor)

### PHYSICAL DATA

Storage Temperature Range = -40°C to +85 °C  
Operating Temperature Range = -20°C to +75 °C  
Max Tensile Load for Installation = 1000(225) N (lbf)  
Max Tensile Load Long term = 500(112) N (lbf)  
Min. Bend Radius, Unloaded = 1 x OD  
Cable Outside Diameter, Nominal = Part # Dependent  
Cable Package\* = 1000ft/304.8m Reel\*

\*Or customer request, spooled  
Rating = FT4-Riser / FT6-Plenum / LSZH

Crush Resistance (TIA/EIA 455-41A) = 100 kgf/mm  
Impact Resistance (TIA/EIA 455-25B) = 1500 Impact cycles  
Flexing @ 90 degree (TIA/EIA 455-104A) = 2000 flexing cycles

### APPLICATIONS

Inter-building and intra-building voice or data communication backbones. Install in ducts, underground conduits type OFNP. Light weight ultra flexible design simplifies installation. Fiber-to-the-Desk (FTTD). Fiber-to-the-Home (FTTH).

ETL 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 850 nm and 1300 nm ≤ 0.05 (db/km)  
Induced Attenuation - 60°C to +85°C  
Watersoak Dependence at 850 nm and 1300 nm ≤ 0.05 (db/km)  
Induced Attenuation at 20°C for 30 days  
Damp Heat Dependence at 850 nm and 1300 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™ 2-8 strand fiber Breakout type cable is composed of a overall jacket with 2.0mm sub-units and if applicable, a central strength member. Utilizing SSF™ fiber allows for incredible strength and durability. Flex tested to 2000 cycles, Impact to 1500 cycles and crush to 100 kgf/mm. SSF™ allows for ease of installation, safety, and reliability in all installation applications for the ultimate in connectivity.

SSF™ conforms to the requirement of IEC 60793-2-10 A1a.3, ISO/IEC 11801 & ITU-T G.651.1. 850 nm Laser-Optimized 50 µm core multimode fiber for 10 Gb/s & above applications

### OPTICAL CHARACTERISTICS\*

Attenuation Coefficient	850 nm	≤ 3.0 (dB/km)
	1300 nm	≤ 1.0 (dB/km)
Numerical Aperture		0.200 ± 0.015
Overfilled Modal Bandwidth	850 nm	≥ 3500 (MHz · km)
	1300 nm	≥ 500 (MHz · km)
High Performance EMB	850nm	≥ 4700 (MHz · km)

### BACKSCATTER CHARACTERISTICS

Attenuation Directional Uniformity	≤ 0.05 (dB/km)	
Attenuation Uniformity	≤ 0.05 (dB)	
Group Index of Refraction	850 nm	1.481
	1300 nm	1.476

### PHYSICAL CHARACTERISTICS

Core Diameter	50.0 ± 2.5(µm)
Core Non-circularity	≤ 6 (%)
Core / Hybrid Cladding Concentricity Error	≤ 3.0 (µm)
Hybrid Cladding Diameter	125 ± 0.7 (µm)
Hybrid Cladding Non-Circularity Error	≤ 3.0 (%)
Soft Peel Jacket Identifier Diameter	250 ± 0.7 (µm)
Coating Strip Force	100 (g)
Fiber Curl	≤ 2 (m)
Dynamic Fatigue Constant (Nd)	> 30
Proof Test	100 (kpsi)
Bend Induced Attenuation at 1300 nm (100 turns around a mandrel of 75 mm diameter)	≤ 1.0 (dB)
Dynamic fatigue 23C, 41%RH	> 30(nd)
Length	1.0 - 8.8 (Km)

### COMPLIANCE

ETL Listed Type OFNR, CSA FT4, IECA S-83-596 & OFNP, CSA FT6, or LSZH-non ETL/ IECA S-104-696. GR-409  
RoHS Compliant Directive 2011/65/EU



CABLE CHARACTERISTICS	
Fiber Count	2, 4, 6, 8
Outer Jacket Material	Riser / Plenum / LSZH
Sub Units	2.0mm Flame Retardant PVC / Jacket Type
Strength Member	Aramid Yarn
Central Strength Member (if applicable)	Fiber Reinforced Plastic Rod
Coating on Central Strength Member	Flame Retardent PVC

PHYSICAL CHARACTERISTICS	VALUE
Nominal Outer Diameter (mm) 2, 4, 6, 8	5.0 / 7.2 / 9.0 / 9.7
Weight (lbs/km) of 2, 4, 6, 8	125 / 135 / 165 / 205
Minimum Bend Radius, Installation (cm)	11.5 / 12.37 / 13.5 / 14.4
Minimum Bend Radius, Operation (cm)	5.0 / 7.2 / 9.0 / 9.7

PART NUMBERS			
Fiber Count	Riser	Plenum	LSZH
2	2B50125OM4R	2B50125OM4P	2B50125OM4L
4	4B50125OM4R	4B50125OM4P	4B50125OM4L
6	6B50125OM4R	6B50125OM4P	6B50125OM4L
8	8B50125OM4R	8B50125OM4P	8B50125OM4L