

# COMPONENT SPECIFICATIONS

## 2-4 SSF™ Multimode OM3 Breakout

### Tactical Outdoor Cable w/2.0mm subunits



Type OM3, PU Jacket

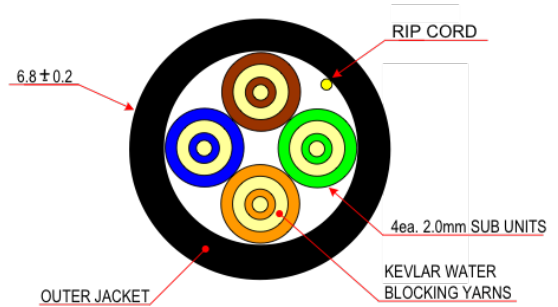
Cleerline SSF™ advanced optical glass fibers are much stronger, safer, and faster terminating than typical fibers. This breakout style cable provides the ultimate in durability and bend. SSF™ fibers are always protected at the glass level as a result of their integral polymeric coating, increasing both 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

Part: 4TB50125OM3PU



## CONSTRUCTION

#### FIBER

Number of Fibers = 2,4  
50/125 Multimode OM3  
250um "Soft Peel" coating  
Color Coding per TIA/EIA 568C

#### JACKET

Tactical Polyurethane (PU)  
Unit Diameter by Part # / 2.0mm Subunits, 1 fiber per unit  
Multimode OM3, ripcord under outer sheath  
Sequential footage markings  
Kevlar + water blocking yarns, Indoor/Outdoor

#### PHYSICAL DATA

Storage Temperature Range = -40°C to +80 °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 Reel

\*Or customer request, spooled  
Rating = Indoor/Outdoor

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

Facilitates portability through deployment and retraction of the cable onto a reel. For harsh environments including temporary or permanent in industrial, broadcast, or abrasive or chemical atmospheres and high crush environments. All dielectric construction requires no grounding or bonding

Polyurethane outer jacket - Environmental and mechanical protection

#### ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 850 nm and 1300 nm  $\leq 0.05$  (db/km)  
Induced Attenuation - 60°C to +85°C  
Watersoak Dependence at 850 nm and 1300 nm  $\leq 0.05$  (db/km)  
Induced Attenuation at 20°C for 30 days  
Damp Heat Dependence at 850 nm and 1300 nm  $\leq 0.05$  (db/km)  
Induced Attenuation at 85°C, 85%R.H., 30 days  
Dry Heat Dependence at 850 nm and 1300 nm  $\leq 0.05$  (db/km)  
Induced Attenuation at 85°C, 30 days

## PRODUCT DETAIL

Cleerline SSF™ 2-4 strand fiber Tactical Breakout type cable is composed of a overall jacket with 2.0mm sub-units. SSF™ fibers provide incredible strength and durability and PU jacketing provides excellent durability, UV and chemical resistance, and extreme flexibility. 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

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  $\mu$ m core multimode fiber for 10 Gb/s & above applications

#### OPTICAL CHARACTERISTICS\*

Attenuation Coefficient	850 nm	$\leq 3.0$ (dB/km)
	1300 nm	$\leq 1.0$ (dB/km)
Numerical Aperture		$0.200 \pm 0.015$
Overfilled Modal Bandwidth	850 nm	$\geq 1500$ (MHz · km)
	1300 nm	$\geq 500$ (MHz · km)
High Performance EMB	850nm	$\geq 2000$ (MHz · km)

#### BACKSCATTER CHARACTERISTICS

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

#### PHYSICAL CHARACTERISTICS

Core Diameter	$50.0 \pm 2.5$ ( $\mu$ m)
Core Non-circularity	$\leq 6$ (%)
Core / Hybrid Cladding Concentricity Error	$\leq 3.0$ ( $\mu$ m)
Hybrid Cladding Diameter	$125 \pm 0.7$ ( $\mu$ m)
Hybrid Cladding Non-Circularity Error	$\leq 3.0$ (%)
Soft Peel Jacket Identifier Diameter	$250 \pm 0.7$ ( $\mu$ m)
Coating Strip Force	100 (g)
Fiber Curl	$\leq 2$ (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)	$\leq 1.0$ (dB)
Dynamic fatigue 23C, 41%RH	>30(nd)
Length	1.0 - 8.8 (Km)

#### COMPLIANCE

IECA S-104-696. GR-409  
RoHS Compliant Directive 2011/65/EU



CABLE CHARACTERISTICS	
Fiber Count	2, 4
Outer Jacket Material	PU
Sub Units	2.0mm Flame Retardant PVC / Jacket Type
Strength Member	Aramid Yarn
Central Strength Member (if applicable)	None
Coating on Central Strength Member	None

PHYSICAL CHARACTERISTICS	VALUE
Nominal Outer Diameter (mm) 2, 4	5.0 / 6.8
Weight (lbs/km) of 2, 4	165 / 205
Minimum Bend Radius, Installation (cm)	11.5 / 12.37
Minimum Bend Radius, Operation (cm)	5.0 / 6.8

PART NUMBERS	
Fiber Count	Part Number
2	2TB50125OM3PU
4	4TB50125OM3PU