

## HARDENED DROP FIBER OPTIC JUMPER

FJ-XX-SCHA-SCHA-XXXXX-T / FJ-XX-SCHA-XXXX-XX-XXXXX-T  
IP GRADE OUTDOOR ASSEMBLIES

This factory preterminated flat drop jumper is the industry standard for existing FTTx installations, it provides a quick and easy "plug and play" connection from the pedestal or handholes to the network terminals (ONTs) and can be installed in aerial, direct-buried or duct installations, reducing the cost and time of drop cable deployment simplifying installation and maintenance.

These factory-based assemblies are machine polished to ensure excellence in performance intermateability and durability. All jumpers are video inspected to ensure connector end-faces are free of defects and contamination. Insertion loss is tested using standard-based testing procedures since it is environmentally sealed.



### APPLICATIONS

- FTTx application

### GENERAL CHARACTERISTICS

- Custom lengths from 20 to 2000FT
- Serial number for each jumper
- Male SC/APC Hardened Connector insertion loss less than 0.40 dB
- Return loss  $\geq$  -65 dB (APC)
- Operating temperatures: -13° F to +158° F (-25° C to +70° C)
- All jumpers are 100% optically tested
- Optitap® Compatible

### STANDARDS

- RoHS
- IP68
- ANSI/TIA-568-C.3
- ANSI/TIA-598-C
- GR-3120-CORE
  - ▶ Torsion
  - ▶ Proof
  - ▶ Transmission with applied tensile load
  - ▶ Compression
  - ▶ Impact
  - ▶ Thermal age
  - ▶ Thermal cycle
  - ▶ Humidity aging



Many of our fiber optic cable assemblies are highly configurable. If you don't see what you are looking for or have questions about our ordering matrix contained on this spec sheet, please email us [info@mexfoserv.com](mailto:info@mexfoserv.com)



**CHARACTERISTICS**

FILUX HARDENED CONNECTOR SPECIFICATIONS	
CONNECTOR TYPE	SC
CONNECTOR POLISHING	APC (ANGLED PHYSICAL CONTACT)
Insertion Loss (1310nm & 1550nm)	≤ 0.40dB
Return Loss (1310nm & 1550nm)	≥ -65dB
Total Cable Assembly Insertion Loss Hardened Connector + Hardened Connector (1310nm & 1550nm)	0.80 Maximum
Ferrule Angle	8° ± 0.3°
Ferrule Type	Zirconia Ceramic
Ferrule Diameter	2.5mm
Operational Temperature	-40°C ~ 75°C

SINGLE-MODE CONNECTOR SPECIFICATIONS			
POLISHING	UPC (ULTRA-PHYSICAL CONTACT)		APC (ANGLED PHYSICAL CONTACT)
CONNECTOR TYPE	SC	LC	SC
Standard body color	Blue	Blue	Green
2mm boot color	Blue	Blue	Green
Max. Insertion Loss (1310nm & 1550nm)	≤ 0.20 dB		≤ 0.20 dB
Min. Return Loss (1310nm & 1550nm)	≤ -55dB		≤ -65 dB
Total Cable Assembly Insertion Loss Hardened Connector + Standard Connector (1310nm & 1550nm)	0.60 Maximum		
Ferrule Type	Zirconia Ceramic		Zirconia Ceramic
Ferrule Diameter	2.5mm	1.25mm	2.5mm
Operational Temperature	-13° F to +158° F (-25° C to +70°C)		

"PLUG AND PLAY" CONNECTION

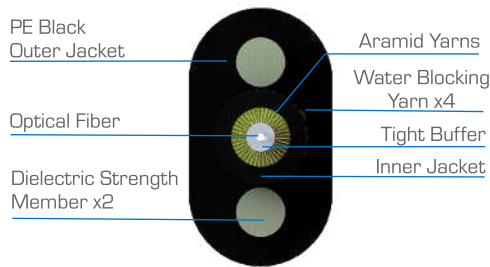


### SINGLE-MODE FIBER SPECIFICATIONS

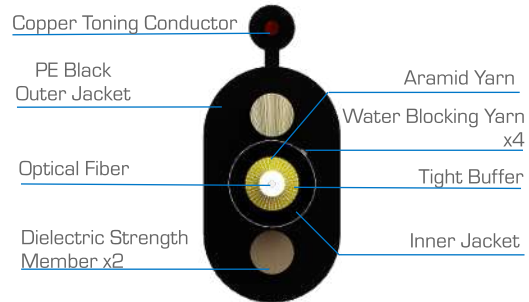
SINGLE-MODE FIBER TYPES AND SPECIFICATIONS		
FIBER TYPE		G657.A1
Mode field diameter (μm)	1,310nm	8.4 ~ 9.2
	1,550nm	9.3 ~ 10.3
Waveoptics® fiber type		T

### SINGLE-MODE CABLE SPECIFICATIONS

#### FLAT DROP SIMPLEX CABLE



**Fig. 1** Flat drop simplex cable  
- Allows deployment near power line and utilities



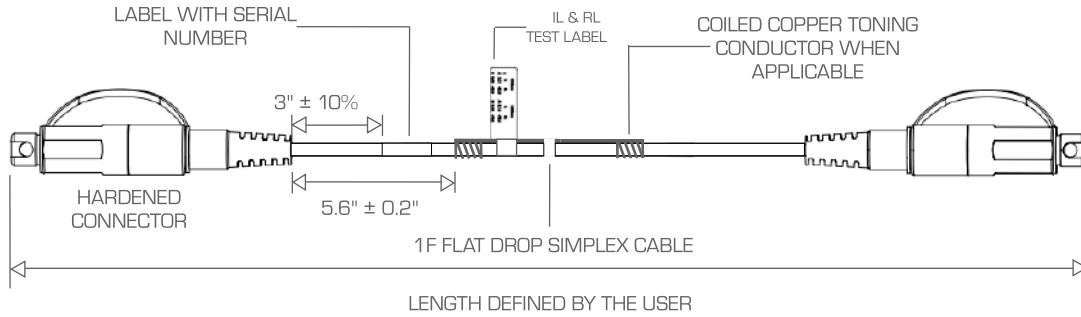
**Fig. 2** Toneable flat drop simplex cable  
- Allows traceability throughout the network

**Note:** Images for reference only

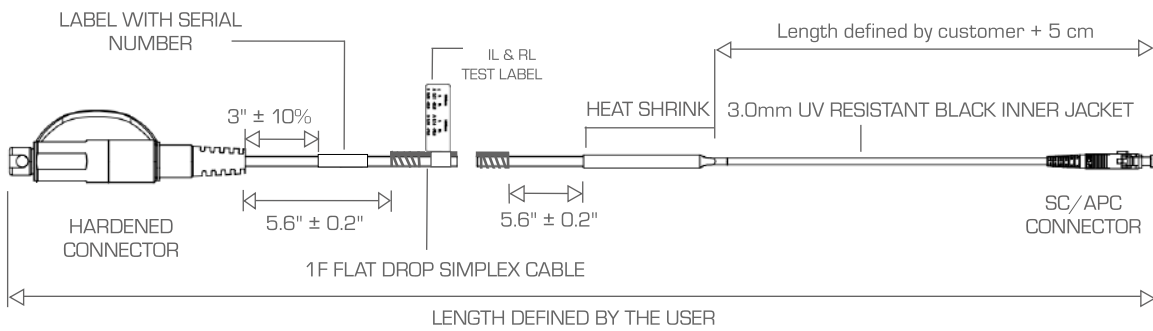
FLAT DROP SIMPLEX CABLE SPECIFICATIONS		
CABLE TYPE	Flat Drop Simplex Cable	Toneable Flat Drop Simplex Cable
Acrylate coated fiber diameter	250μm	
Tight buffer material/diameter	PVC Riser / 0.9mm (0.04")	
Nominal outer dimensions	8.0 x 4.5mm (0.32 x 0.18")	10.0 x 4.5mm (0.39 x 0.18")
Cable weight	43.5kg/km [29.2lb/kft]	47.4kg/km [31.9lb/kft]
Max. Attenuation	0.4 (1310nm) / 0.3 (1550nm) (dB/Km)	
Tensile strength long-term/short-term	400N/1350N	
Crush resistance (short-term/long-term)	2200N/100mm / 1100N/100mm	
Minimum bend radius (operation/installation)	10 x OD / 20 x OD	



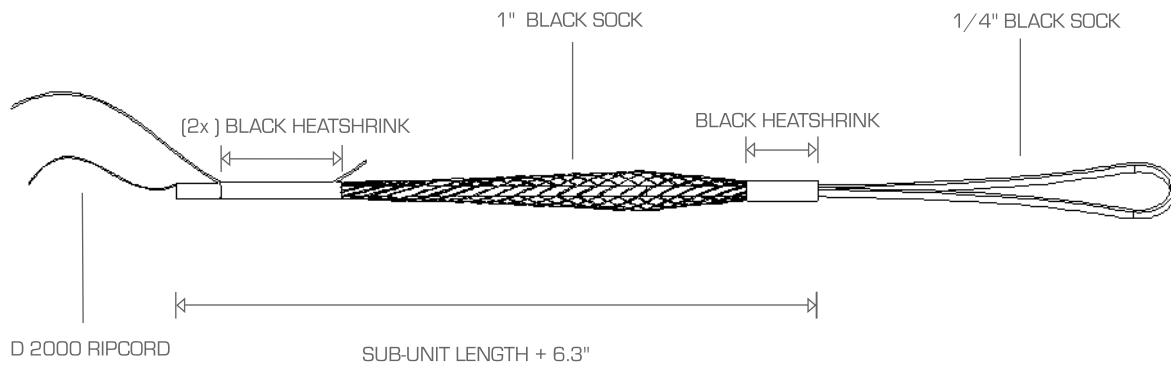
## DIMENSIONS



### SC/APC HARDENED TO STANDARD CONNECTOR EXAMPLES



### PULLING EYE COMPONENTS



**Note:** The flat drop SC/APC hardened connector jumper tolerances are:  
+4 ft/- 0.0 ft

**Note:** Images for reference only



## STANDARD PACKAGING

### BOX PACKAGING SPECIFICATIONS

**1**  
ASSEMBLIES  
FROM  
20 ft TO  
300 ft



INDIVIDUAL  
ZIPPER BAG



PACKAGING  
BOX



MASTER  
BOX



PALLET

**2**  
ASSEMBLIES  
FROM  
301 ft TO  
1000 ft



INDIVIDUAL  
COIL



PACKAGING  
BOX



MASTER  
BOX



PALLET

### REEL PACKAGING SPECIFICATIONS

**3**  
ASSEMBLIES  
FROM  
301 ft TO  
2000 ft



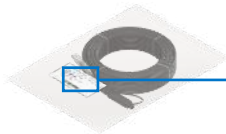
PLASTIC REEL



INDIVIDUAL REEL BOX

## LABELING SPECIFICATION

### INDIVIDUAL ZIPPER BAG



### PLASTIC REEL



FONCS16-M



FONCS15-M



LABEL WITH  
PRODUCT  
INFORMATION



INDIVIDUAL REEL BOX



FONCS17-M



BOX PACKAGING SPECIFICATIONS								
1	Length	16 x 18" Zipper bag 1129	3 x 4" Label	Assemblies per 58.4X 49 X 23.5 CM packing box FONCS17-M	Cable ties	Master box 60.4 x 51 x 51 cm FONCS15-M	Assemblies per master box	Master boxes per pallet
	20-50 ft	1	3	15	4	Fits 2 packaging boxes	30	16
	51-75 ft	1	3	12	4		24	
	76-100 ft	1	3	9	4		18	
	101-150ft	1	3	6	4		12	
	Length	20 x 20" Zipper bag S-12259	3 x 4" Label	Assemblies per 58.4X 49 X 23.5 CM packing box FONCS17-M	Cable ties	Master box 60.4 x 51 x 51 cm FONCS15-M	Assemblies per master box	Master boxes per pallet
151-300 ft	1	3	3	4	Fits 2 packaging boxes	6	16	
2	Length		3 x 4" Label	Assemblies per 50 x 19.8 x 50 cm packing box FONCS16-M	Cable ties	Master box 60.4 x 51 x 51 cm FONCS15-M	Assemblies per master box	Master boxes per pallet
	301-1000 ft		2	1	4	Fits 3 packaging boxes	3	16
REEL PACKAGING SPECIFICATIONS								
3	Length		3 x 4" Label	Individual reel	Individual reel box	Boxes per pallet		
	301-2000 ft		2	EM-1136 reel 34.02 x 30.5 x 45.75 cm	EM-1024A-M box 48.1 x 37.2 x 48.5 cm	24		

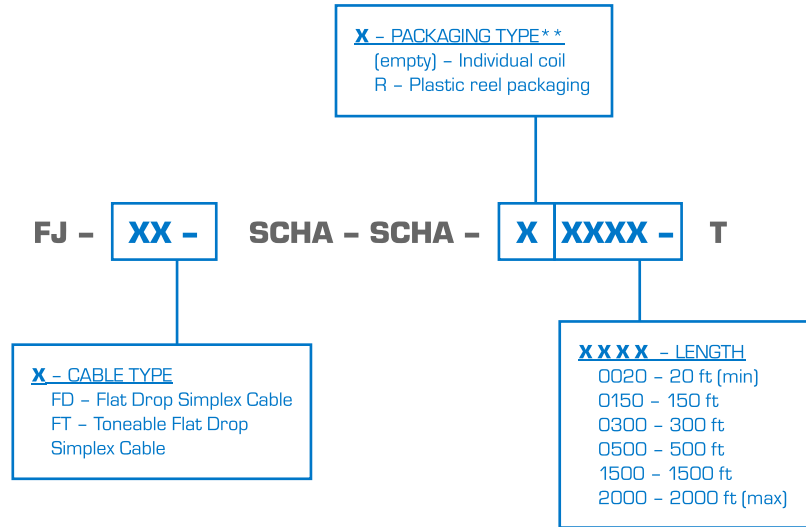
**Notes:**

1. Assemblies from 20FT to 100FT will be in leaps from 10FT to 10FT.
  2. Assemblies from 100FT to 300FT will be in leaps from 25FT to 25FT.
  3. Assemblies from 300FT and above will be in leaps from 50FT to 50FT.
- All boxes are mounted on a 1x1.2m (40 x 48") CERT-1113 certified pallet.

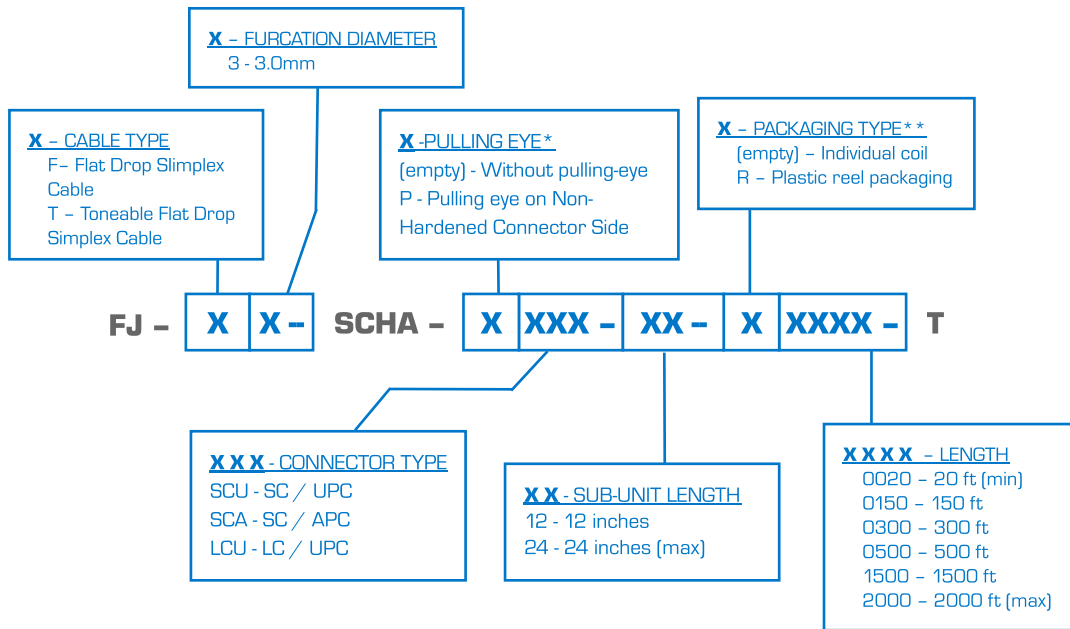


## ORDERING MATRIX

### SC/APC HARDENED CONNECTOR DROP FIBER OPTIC JUMPER



### HYBRID SC/APC HARDENED CONNECTOR DROP FIBER OPTIC JUMPER



**Notes:**

- The 3.0mm simplex cable is always black due to jacket construction.
- \* The pulling eye can only be added on one end in any transition (non-hardened connector side).
- \*\* Configurable packaging type only available for assemblies between 301 to 1000 feet.

