

CX-OPT-SCAPC-PT

Pre-Connectorized Fiber Optical Pigtail

Speed, precision, and lasting performance in modern fiber access networks

Introduction:

The ComponexX CX-OPT-SC/APC-PT is a rugged, pre-connectorized fiber patch cord engineered for dependable optical performance in both outdoor and indoor network environments. Built around a 2.0*5.0 mm FTTH DROP CABLE low-smoke, zero-halogen (LSZH) jacket, it combines mechanical durability with optical precision for long-term stability and reduced installation time.



Each cable is factory-terminated with high-precision SC/APC connectors, minimizing insertion loss while ensuring stable return loss performance even under variable environmental conditions. With robust tensile and crush resistance and full dielectric construction, the CX-OPT-SC/APC-PT provides a reliable, plug-and-play solution for FTTH, access, and enterprise applications.

Applications

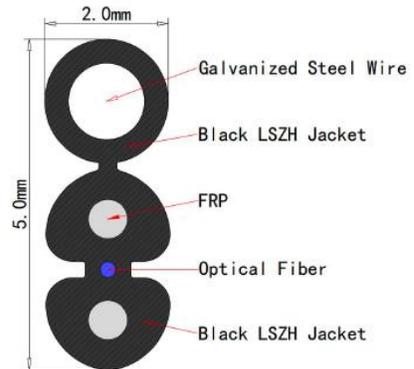
- FTTH / FTTx access and drop connections
- Outdoor and indoor patching in distribution cabinets or wall boxes
- Telecom and broadband network interconnections
- Aerial, conduit, or riser installations requiring rugged, flexible performance

Key Advantages

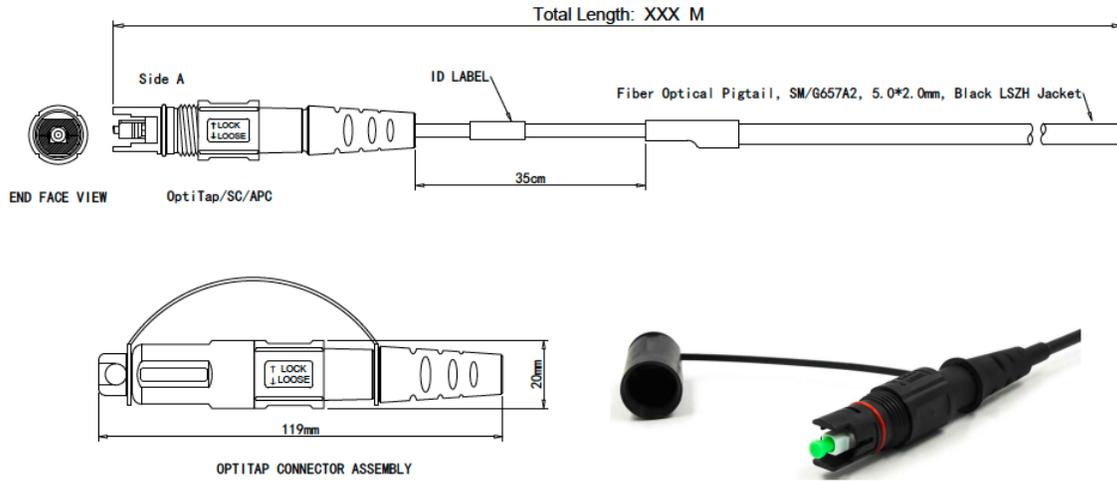
- **Rugged LSZH Construction:** 2.0*5.0mm FTTH Drop cable, and the LSZH flame resistant jacket provides flexibility and flame resistance for demanding installations
- **High-Precision SC/APC Connectors:** Factory-polished connectors ensure low insertion loss (≤ 0.3 dB) and high return loss (≥ 60 dB)
- **Reinforcement:** FRP Non-metallic strength members with 1.0mm Galvanized Steel Wire supporting that improve tensile and crush resistance
- **Plug-and-Play Efficiency:** Pre-terminated design eliminates field polishing and splicing, saving labor and setup time
- **Stable Optical Performance:** G.657A2 fiber maintains consistent attenuation under bend and temperature variation
- **Wide Operating Range:** Performs reliably across -40°C to $+75^{\circ}\text{C}$ for indoor or outdoor environments

Technical Specifications:

Cable Parameters		
Item	Description	Parameter
Fiber Type	—	SM-G657A2
Fiber Count	—	1
Colored Coating Fiber	Fiber Color	Blue
	OD	250±5µm
Outer Jacket	Material	LSZH
	Color	Black
	OD	(2.0±0.1) mm × (5.1±0.1) mm
Strength Member	—	FRP (Non-Metallic)
Minimum Bending Radius	Long Term	15D
	Short Term	20D
Tensile Strength/N	Long Term	300
	Short Term	600
Crush Resistance N/100mm	Long Term	1000
	Short Term	2000
Working Temperature	—	-20~70 °C



Fiber Parameter		
Item	Condition	Parameter
Fiber Type	—	SM-G657A2
Attenuation	1310 nm	≤0.35 dB/km
	1550 nm	≤0.35 dB/km
MFD	1310 nm	8.4–9.2 µm
	1550 nm	9.3–10.3 µm
Cladding Diameter	—	125 ± 0.7 µm
Coating Diameter	—	245 ± 5 µm
Core-Cladding Concentricity Error	—	≤0.5 µm
Cable Cutoff Wavelength (λ _{cc})	—	≤1260 nm
Microbend-induced attenuation	Mandrel radius 15 mm at 1,550 nm 10 turns	≤0.03dB
	Mandrel radius 15 mm at 1,625 nm 10 turns	≤0.1dB
	Mandrel radius 10 mm at 1,550 nm 1 turn	≤0.1dB
	Mandrel radius 10 mm at 1,625 nm 1 turn	≤0.2dB



Connector Parameters		
Item	Description	Parameter
Connector Type	—	OPT/SC/APC
Insertion Loss	@1310/1550 nm	≤0.3 dB
Return Loss	@1310/1550 nm	≥60 dB
Interchangeability	@1310/1550 nm	≤0.2 dB
Repeatability	@1310/1550 nm	≤0.2 dB
Durability (mating cycles)	—	800–1000
Operating Temperature	—	-40~75 °C
Test Wavelength	—	1310 nm / 1550 nm