

Product Description

The PLANET Outdoor Simplex OS2 Fiber Optic Drop Cable Assembly Series is a ruggedized single-mode optical cable assembly designed for outdoor and harsh-environment applications. The common cable platform uses 9/125 μm OS2 bend-insensitive fiber compliant with ITU-T G.657.A1 or G.657.A2 in a tight-buffered construction, reinforced with aramid yarn and protected by a 5.0 mm UV-resistant LSZH outer jacket. Ten connector configurations are available using SC and LC connectors with UPC or APC polishing, while the cable construction and performance specifications remain common across the series.

Key Features

- One common outdoor simplex OS2 cable platform with 10 connector configurations.
- OS2 9/125 μm bend-insensitive fiber: ITU-T G.657.A1 or G.657.A2.
- 5.0 mm UV-resistant LSZH outdoor jacket with aramid-yarn strength member.
- SC and LC connector options with UPC and APC polishing.
- Factory terminated and 100% optically tested.
- Connector durability: ≥ 1000 mating cycles.
- Standard lengths: 30 m, 50 m, 75 m and 100 m; other lengths on request.



Reliable Connectivity
for a Smarter World



Available Connector Configurations (10 Options)

1 SC/UPC → SC/UPC	2 SC/APC → SC/APC	3 SC/UPC → SC/APC	4 LC/UPC → LC/UPC	5 LC/APC → LC/APC
6 LC/UPC → LC/APC	7 SC/UPC → LC/UPC	8 SC/APC → LC/APC	9 SC/UPC → LC/APC	10 SC/APC → LC/UPC



OS2 9/125 μm
Single Mode Fiber



G.657.A1/A2
Bend Insensitive



IP67
Waterproof



UV Resistant
Outdoor Rated



≥ 1000
Mating Cycles

Product Construction

Fiber Type	Single Mode OS2, 9/125 μ m
Fiber Standard	ITU-T G.657.A1 or G.657.A2 (bend-insensitive OS2); compatible with G.652.D transmission systems
Fiber Count	1 Fiber (Simplex)
Cable Structure	Tight Buffered
Construction Code	GJFJH
Cable Diameter	5.0 mm $\pm$ 0.2 mm
Jacket Material	LSZH, UV-resistant outdoor jacket
Strength Member	Aramid Yarn
Additional Reinforcement	FRP reinforcement optional on request
Armouring	None in base construction; optional metallic armour on request
Cable Colour	Black
Connector Families	SC and LC; UPC or APC polishing according to selected configuration
Standard Lengths	30 m / 50 m / 75 m / 100 m; other lengths on request

Optical Performance

Operating Wavelength	1310 / 1550 nm
Insertion Loss (Typical)	$\leq$ 0.20 dB
Maximum Insertion Loss	$\leq$ 0.30 dB
Return Loss - UPC	$\geq$ 50 dB
Return Loss - APC	$\geq$ 60 dB
Fiber Attenuation @ 1310 nm	$\leq$ 0.35 dB/km
Fiber Attenuation @ 1550 nm	$\leq$ 0.22 dB/km

Note: Common cable performance applies to all 10 connector configurations; return loss is determined by the selected UPC or APC polish at each end.

Mechanical Characteristics

Tensile Strength (Installation)	≥ 600 N
Tensile Strength (Long Term)	≥ 300 N
Crush Resistance	≥ 1000 N/100 mm
Minimum Bend Radius (Installation)	20 × Cable Diameter
Minimum Bend Radius (Operation)	10 × Cable Diameter
Operating Temperature	-40 °C to +70 °C
Storage Temperature	-40 °C to +70 °C
UV Resistance	Yes
Moisture Resistance	Outdoor moisture-resistant construction; no continuous-submersion / IP claim unless separately specified

Connector Specifications

Connector	Type	Polish	Ferrule Dia.	Ferrule	Standard	Return Loss
SC/UPC	SC	UPC	2.5 mm	Zirconia Ceramic	IEC 61754-4	≥ 50 dB
SC/APC	SC	APC	2.5 mm	Zirconia Ceramic	IEC 61754-4	≥ 60 dB
LC/UPC	LC	UPC	1.25 mm	Zirconia Ceramic	IEC 61754-20	≥ 50 dB
LC/APC	LC	APC	1.25 mm	Zirconia Ceramic	IEC 61754-20	≥ 60 dB

Connector Durability & Test Reference

Durability	≥ 1000 mating cycles for SC and LC connector options
Connector Operating Temperature	-40 °C to +75 °C
Test Reference	IEC 61300 series
Housing Material	Engineering plastic

Available Connector Configurations - 10 Options

No.	End A	End B	Polish	Return Loss (A/B)	Availability
1	SC/UPC	SC/UPC	UPC / UPC	≥50 / ≥50 dB	Standard
2	SC/APC	SC/APC	APC / APC	≥60 / ≥60 dB	Standard
3	SC/UPC	SC/APC	UPC / APC	≥50 / ≥60 dB	Standard
4	LC/UPC	LC/UPC	UPC / UPC	≥50 / ≥50 dB	Standard
5	LC/APC	LC/APC	APC / APC	≥60 / ≥60 dB	Available
6	LC/UPC	LC/APC	UPC / APC	≥50 / ≥60 dB	Available
7	SC/UPC	LC/UPC	UPC / UPC	≥50 / ≥50 dB	Standard
8	SC/APC	LC/APC	APC / APC	≥60 / ≥60 dB	Standard
9	SC/UPC	LC/APC	UPC / APC	≥50 / ≥60 dB	Available
10	SC/APC	LC/UPC	APC / UPC	≥60 / ≥50 dB	Available

Ordering note: The connector configuration and cable length define the final order code. The six most common configurations are shown as Standard; the remaining four are available on request. Final part numbers for non-standard configurations should be confirmed at order stage.

APPLICATIONS

- FTTH fiber drop connection
- Outdoor fiber distribution
- FTTx access networks
- GPON / XGS-PON networks
- CCTV fiber transmission
- Industrial communication systems
- Telecom access / backbone links
- Harsh-environment installations

APPLICABLE STANDARDS / REFERENCES

- ITU-T G.657.A1 / G.657.A2
- IEC 60794-3 series
- IEC 61754-4 (SC connector)
- IEC 61754-20 (LC connector)
- IEC 61300 series
- RoHS

Packaging & Factory Testing

- Individually packed in protective bag.
- Cable length identification label.
- Test report included when specified.
- 100% factory optical tested.

Note: Optional reinforcement or armouring configurations must be defined and verified at order stage; they are not part of the base construction unless stated in the purchase specification.