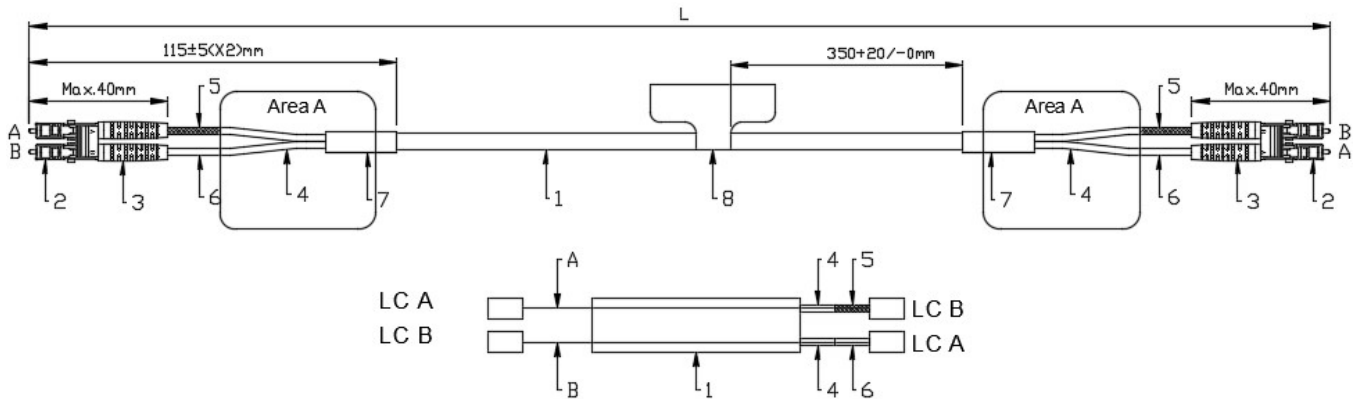


OSK002_01_LPC_LPC

Outdoor Optical Cable Assembly

G657A2, 2 Cores, LC(PC) - LC(PC), Black LSZH



1 Product Structure

	Designation	P/N.	E/N.	Material
1	Cable	OSK002_01	--	Outdoor Optical Cable, G657A2, Single-mode, 2 Core with 0.9 mm Fiber, OD 4.8 mm, Black LSZH
2	Connector	--	--	LC Duplex for Single-mode Fiber, Blue
3	Hood	--	--	Tube for LC Connector, White
4	Protective	--	--	Flexible Protective with Steel Tube, OD Max.3.0 mm
5	Identifier	--	--	Heat Shrinkable Tube, Yellow
6	Identifier	--	--	Heat Shrinkable Tube, White
7	Transition	--	--	Molding, Black, OD7.5±0.5 mm, L=17±1mm
8	Label	--	--	Plastic Label, Waterproof
A	--	--	--	Fiber A, 9/125/245 μm, Red, Tight Tube, OD 0.9 mm
B	--	--	--	Fiber B, 9/125/245 μm, Blue, Tight Tube, OD 0.9 mm

Note: Area A must withstand +95°C;

2 Product List

KS P/N	KS E/N	Designation
OSK002_01_LPC_LPC/1	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 1m
OSK002_01_LPC_LPC/2	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 2m
OSK002_01_LPC_LPC/3	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 3m
OSK002_01_LPC_LPC/5	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 5m
OSK002_01_LPC_LPC/10	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 10m
OSK002_01_LPC_LPC/20	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 20m
OSK002_01_LPC_LPC/30	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 30m
OSK002_01_LPC_LPC/50	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 50m
OSK002_01_LPC_LPC/70	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 70m
OSK002_01_LPC_LPC/100	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 100m
OSK002_01_LPC_LPC/150	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 150m
OSK002_01_LPC_LPC/200	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 200m
OSK002_01_LPC_LPC/250	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 250m
OSK002_01_LPC_LPC/300	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 300m
OSK002_01_LPC_LPC/500	---	CPRI, SM, Black LSZH, Duplex, LC(PC) - LC(PC), 500m

3 Fiber Structure

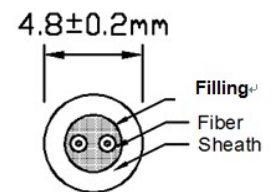
Standards	ITU G.657 A2 / IEC60793-2-50 B6_a2
Cladding Diameter	125 ± 0.7 μm
Coating Diameter (Uncolored)	245 ± 7 μm
Concentricity Error Core / Cladding	≤ 0.5 μm
Concentricity Error Cladding / Coating	≤ 12.0 μm
Cladding Non-Circularity	≤ 1.0 %
Coating Non-Circularity	≤ 6.0 %

4 Fiber Requirements

Cable Cut-Off Wavelength λ_{cc}	(nm)	≤ 1260
Polarization Mode Dispersion	(ps/√km)	≤ 0.2
Zero Dispersion Wavelength λ_0	(nm)	1300 - 1324
Zero Dispersion Slope S0 at λ_0	(ps/nm ² •km)	≤ 0.092
Attenuation Typical, (In Cable)	1310 / 1550 nm (dB/km)	≤ 0.35 / ≤ 0.21
Attenuation Maximum, (In Cable)	1310 / 1550 nm (dB/km)	≤ 0.40 / ≤ 0.25
Chromatic Dispersion	1310 / 1550 nm (ps/nm•km)	≤ 3.5 / ≤ 18.0
Bending Loss	1550 nm, R = 7.5 mm (dB, 1 turn)	≤ 0.5
	1550 nm, R = 10 mm (dB, 1 turn)	≤ 0.1
	1550 nm, R = 15 mm (dB, 10 turn)	≤ 0.03

5 Cable Structure

Outer Sheath, Black LSZH, OD 4.8 mm
Fiber, 9/125/245 μm, Tight tube, OD 0.9 mm
Filling
Cable Marking KINGSIGNAL OSK002_01 9/125 SM MMDDYY-TTTT-N *****M
*MMDDYY-TTTT: Product Month Date Year and Time; N: Operator No.



6 Connector Requirements

Size		LC Duplex - LC Duplex
Color	Body / Cap / Hood	Blue / White / White
Polishing		UPC
Length limited	LC Duplex (2/3)	Max.40 mm (Connector End Face to Hood end)
Insertion Loss	Reference / Random	≤ 0.2 / 0.50 dB, IEC 61300-3-4 method B Return
Loss		≥ 50 dB, IEC 61300-3-6 Method 1 or Equivalent
End Face Geometry	Radius	7 - 25 mm, IEC 61300-3-16
	Vertex Offset	< 50 μm, IEC 61300-3-15
	Fiber Protrusion	≤ 50 nm, IEC 61300-3-23
	Fiber Withdrawal	≤ 50 nm, IEC 61300-3-23

7 Mechanical Specifications

Item	Test Standard	Limit Value	Test Result
Tensile Strength	IEC 60794-1-2 E1A	≥ 300 N (Long Term)	Pass
Installation Test	1/102 64-COH 109 2099	Dwell Time: 24h	Pass
Crush Resistance	IEC 60794-1-2 E3	3000 N (100mm Plate)	No Damage to Sheath
	≥ 500mm, 60s, 3 Times		No Damage to Sheath
Bending Radius	IEC 60794-1-2 E11A	≥ 20 mm (Cable)	Pass
		≥ 10mm (Fan Out)	Pass

Pulling	IEC 61300-2-4	RRU-End $\geq 50N$, 120s	Insertion Loss Variation ≤ 0.2 dB
	0.5 Meter from Connector	MU-End $\geq 50N$, 120s	Final Value ≥ 50 dB
Torsion	IEC 61300-2-5	RRU-End $\geq 15N$, 25 Cycles $\pm 180^\circ$	Insertion Loss Variation ≤ 0.2 dB
	0.5 Meter from Connector	MU-End $\geq 15N$, 25 Cycles $\pm 180^\circ$	Final Value ≥ 50 dB
Compression Force (Ferrule)	IEC 61300-3-22	4.5 - 8 N	Pass
Temp. Cycling	IEC 61300-2-22	-40°C to +75°C	Insertion Loss Variation
	Cable Coiled Loosely,	Dwell time: 6h (150m)	During ≤ 0.5 dB, After ≤ 0.4 dB
	Diameter $\geq 600mm(150m)$	Dwell time: 1.5h (3m)	Final Value ≥ 50 dB
	Diameter $\geq 300mm(3m)$	12 cycles	

8 Environment Specifications

Operating Temperature	-40°C to +75°C (Area A to +95°C)
Installation Temperature	-15°C to +60°C
Storage Temperature	-40°C to +70°C
Water Penetration	Pass, IEC 60794-1-2 F5B
Vertical Flame Spread	Pass, IEC 60332-3-24
UV Resistance	Pass, ISO 4892-3
Connectors	UL94 V-0

9 Tolerance

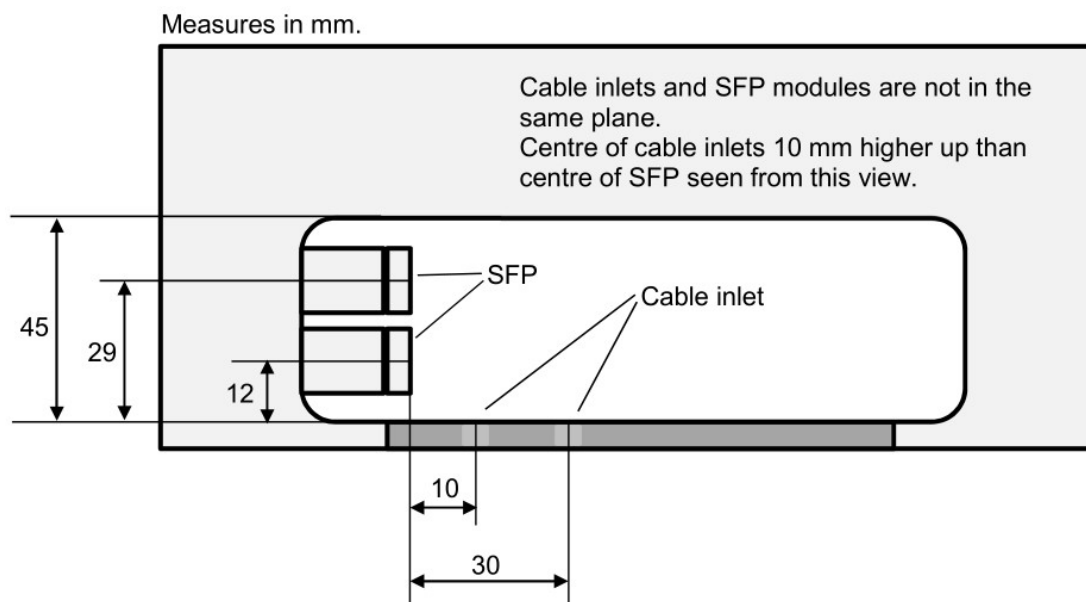
L = < 5 m	± 50 mm;
L = 5 - 50 m	$\pm 1\%$ mm;
L = > 50 m	± 100 mm;

10 Packages

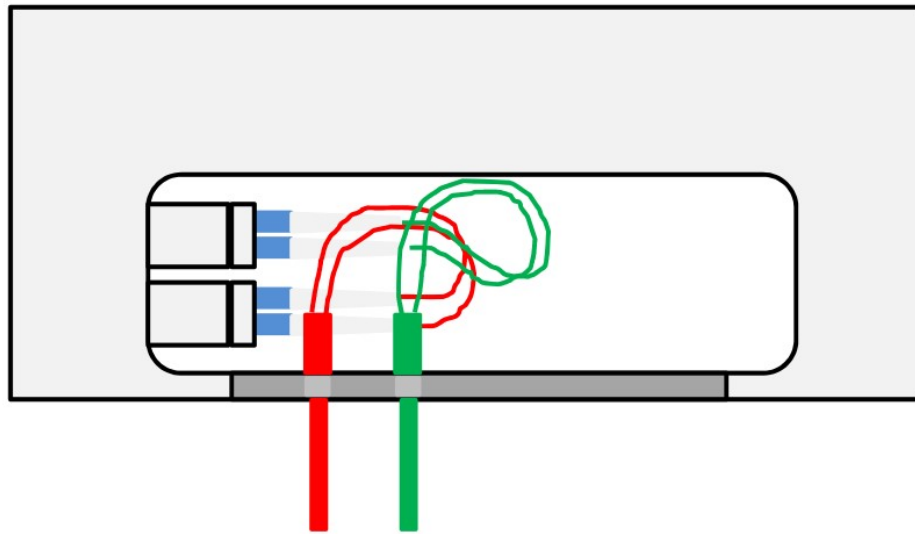
According to the Packaging Specifications

11 Installation requirements

Both ends of the cable must be able to install in tight spaces without exceeding the minimum bending radius or folding the protecting tube. See the worst case example below.



Worst case installation scenario.



12 Banned and Restricted Substances

RoHS 2002/95/EC

Compliant

13 Document Revision Information

Revision	Description
A0	First revision
A1	New P/N. Added;
A2	Drawing change;
A3	Crush Resistance: Deleted 25mm steel mandrel; Compression Force: Update into 4.5-8 N; Temp. Cycling: Update into -40°C to +75°C; Operating Temperature Update into -40°C to +75°C; Added Installation requirements; Transition change to molding New P/N. Added;