

OPGW Design

Ref: SFPOC/SFSJ-J-7079

Cable: 96SMF OPGW

Key Design Data – Complete Cable:

Nominal Cross Sectional area	mm ²	214
Center- Aluminum Clad Steel wires(27%) –No./Dia.	mm	1/4.1
L1- Aluminum Clad Steel wires(27%) –No./Dia.	mm	4/4.0
L1- Stainless Steel Tube –No./Dia.	mm	2/3.9
L2- Aluminum Clad Steel wires(27%) –No./Dia.	mm	2/4.0
L2- Aluminum Alloy wires –No./Dia.	mm	10/4.0
Lay Direction-Outer Layer		RIGHT HAND

General Design Data (For Information Only)

Nominal Overall Diameter	mm	20.1
Ultimate Conductor Tensile Strength	kN	123
Approximate Total Mass	Kg/km	935
Electrical Resistance at 20° C	Ω/km	0.192
Modulus of Elasticity	N/mm ²	94,253
Coefficient of Linear Expansion	x10 ⁻⁶ /°C	17.1
Short Circuit Current Capacity(Ambient =40°C)	kA ² s	339

Optical Data

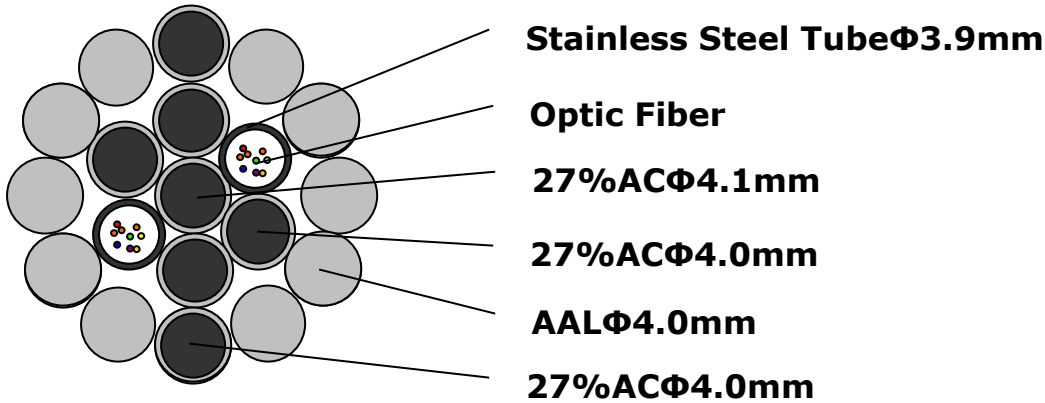
Optical Fiber Type	-	Single model G.652D
Manufacturer	-	OFS
Mode Field Diameter-1310nm	μm	9.2±0.4
Mode Field Diameter-1550nm	μm	10.4±0.8
Cladding Diameter	μm	125.0±0.7
Core-Clad Concentricity	μm	≤ 0.5
Cladding Non-Circularity	%	≤ 1.0
Coating Diameter(uncolored)	μm	245±5
Coating-Cladding Concentricity	μm	<12
Attenuation Coefficient-1310nm	dB/km	≤0.35
Attenuation Coefficient-1550nm	dB/km	≤0.22
Cable Cut-Off Wavelength	nm	≤1260
Zero Dispersion Wavelength	nm	1302-1322
Zero Dispersion Slope	Ps/nm ² .km	≤0.092

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Customer: Sweden
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Date : May 27, 2011

Cable Drawing:



Color Coding:

Tube 1(no dot)

Fiber 1 to Fiber 12: Blue, Orange, Green, Brown, Slate, White, Red, Natural, Yellow, Violet, Rose, Aqua.

Fiber 13 to Fiber 24: Same base color but with one black ring mark at regular intervals.

Fiber 25 to Fiber 36: Same base color but with two black ring marks at regular intervals.

Fiber 37 to Fiber 48: Same base color but with three black ring marks at regular intervals.

Tube 2(one dot at regular intervals)

Fiber 1 to Fiber 12: Blue, Orange, Green, Brown, Slate, White, Red, Natural, Yellow, Violet, Rose, Aqua.

Fiber 13 to Fiber 24: Same base color but with one black ring mark at regular intervals.

Fiber 25 to Fiber 36: Same base color but with two black ring marks at regular intervals.

Fiber 37 to Fiber 48: Same base color but with three black ring marks at regular intervals.