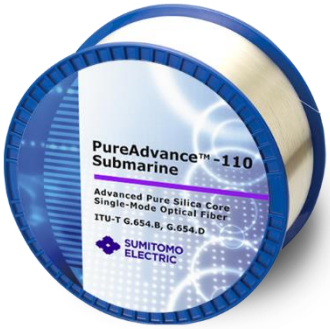
SUMITOMO ELECTRIC
Connect with Innovation



G.654.B, G.654.D

PureAdvance™-110 Submarine

Advanced Pure Silica Core Single Mode Optical Fiber

- **Ultra-low attenuation of 0.156 dB/km, and large effective area of 110 μm² typical**
- **For regional to middle-reach repeatered (500 – 8,000 km) and long-reach unrepeatered (- 600 km) submarine systems**

General

Effective Area

Typical effective area at 1550 nm	110 μm²

Attenuation

Typical attenuation at 1550 nm	0.156 dB/km

Core Glass

	Pure Silica

Optical Characteristics

Attenuation

Attenuation at 1550 nm (Average in total quantity)	≤ 0.159 dB/km
Point discontinuity at 1550 nm	≤ 0.05 dB

Effective Area

Effective area at 1550 nm	110 ± 12 μm²

Chromatic Dispersion

Chromatic dispersion at 1550 nm	≤ 22 ps/nm/km
Chromatic dispersion slope at 1550 nm	≤ 0.070 ps/nm²/km

Cable Cutoff Wavelength (λcc)

λcc	≤ 1530 nm

Polarization Mode Dispersion (PMD)

Individual fiber PMD*1)	≤ 0.1 ps/r-km

Geometrical Characteristics

Glass Geometry

Core - cladding concentricity error	≤ 0.8 μm
Cladding diameter	125.0 ± 1.0 μm
Cladding non-circularity	≤ 2.0 %

Coating Geometry

Coating diameter (Natural)	245 ± 10 μm
Coating diameter (Colored)	250 ± 15 μm
Coating-cladding concentricity error	≤ 12 μm

Mechanical Characteristics

Proof Test

Proof stress level	2.0% (200 kpsi = 1.43 GPa)

Macrobending Loss

Bending radius	Number of turns	Wavelength	Induced Attenuation
30 mm	100	1550 nm	≤ 0.50 dB
30 mm	100	1625 nm	≤ 0.50 dB

Packaging

Delivery Length

	5 – 100 km

*1) Measured on fiber with free tension. PMD values may change when fiber is cabled. This PMD value will be achieved when cabled properly.

This document states a standard specification. Upon request, alternative value offerings will be available.

SUMITOMO ELECTRIC GROUP