8,000 m repeatered transoceanic submarine optical telecom cable

SC300 (LW / LWS / SAL / SAM / DA)

8,000m Transoceanic Optical Cable

ITU-T G.976 / G.978 · 12/20 kV · 8,000 m repeatered transoceanic submarine optical



ITU-T G.976 / G.978 | 15 kV DC Repeater Feed | 8,000 m Transoceanic

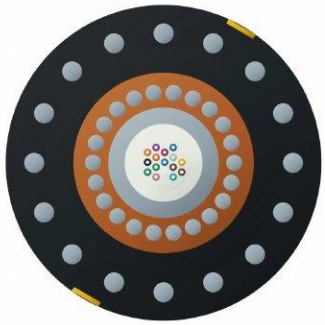
Application

SC300 Series (LW / LWS / SAL / SAM / DA) 8,000m Deep-Sea 3-Divided Steel Segment Loose-Tube & TIG-Welded Copper Tube Repeatered Transoceanic Optical Submarine Cable (ITU-T G.976 / G.978, 12/20 kV, -10 to +60 °C).

Typical uses: Work-Class & Observation ROV Systems, Offshore Wind & Subsea Power Grids, Oceanographic, Sonar & Seismic Survey, Commercial Diving & Subsea Intervention

Construction





Cross-section, not to scale

1. Dispersion-Managed Fibers (Up to 16 DMF)
2. 3-Divided Steel Segment Pipe & Steel Wires
3. TIG-Welded Copper Tube (15 kV DC Feed)
4. High-Voltage PE Insulation (LW Core Ø20.4 mm)
5. Armour Package (SAL 22×Ø3.2 mm / LWS / DA)

Technical data

Typical values

Rated voltage / transmission duty	12/20 kV (ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard)	**Core / conductor construction**	Dispersion-Managed Fibers (Up to 16 DMF) — Loose stress-free DMF+/DMF– optical fibers in ≥78 MPa water-blocking gel
Primary dielectric / buffering	3-Divided Steel Segment Pipe & Steel Wires — Three cold-formed steel arch segments + stranded high-strength steel wire layer	**Continuous operating temperature**	−10…+60 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Armour Package (SAL 22×Ø3.2 mm / LWS / DA) — Galvanized steel armour wires (310–800 kN) + PE sheath & PP roving serving	**Minimum bending radius**	20 × OD
Hydrostatic, tensile & crush duty	High-Voltage PE Insulation (LW Core Ø20.4 mm) — Extruded polyethylene HV insulation forming the 8,000 m deep-sea LW cable	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard		

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Tensile rating kN ≈	Min. bend R mm
SC300 (LW / LWS / SAL / SAM / DA) Construction Schedule (−10…+60 °C) 3 sizes						
☐ **SC300 4F Single-Mode OS2**	4 × G.652.D / G.657.A2 SM (200 kpsi)	Hermetic / gel-filled optical core	3.5	18	3.4	35
☐ **SC300 12F Single-Mode OS2**	12 × G.652.D / G.657.A2 SM (200 kpsi)	Hermetic / gel-filled optical core	9.8	145	18.0	98
☐ **SC300 24F Armoured Subsea**	24 × G.652.D SM + Strength Armour	Subsea pressure-resistant optical unit	17.0	580	95.0	255

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4 × G.652.D / G.657.A2 SM (200 kpsi)	0.35	≤0.35 dB/km @ 1310 nm	−10…+60 °C
12 × G.652.D / G.657.A2 SM (200 kpsi)	0.22	≤0.22 dB/km @ 1550 nm	−10…+60 °C
24 × G.652.D SM + Strength Armour	0.20	≤0.20 dB/km @ 1550 nm	−10…+60 °C

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- ITU-T G.976 / G.978 Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/sc300-lw-lws-sal-sam-da

Typical values for this cable type, based on ITU-T G.976 / G.978 & UJC 8,000 m Transoceanic Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.