PS540L-26.5G-F

Flexible Low Loss Phase Stable Coaxial Cable (26.5GHz, Solid Conductor)

- **Solid Inner Conductor:** 1/1.60mm SPC for maximum performance and low loss.
- **Frequency Range:** DC to 26.5 GHz with 50 Ohm impedance.
- **LD-PTFE Dielectric:** Low density PTFE dielectric achieving 83% velocity of propagation.
- **Dual Shielding & FEP Jacket:** Silver-plated copper tape + braid shielding (>90 dB) encased in a Gray FEP jacket.

Direct Drop-in Replacement Compatibility: The **PS540L-26.5G-F** is functionally and dimensionally equivalent to industry-standard high-frequency phase-stable cables including **IW 1501 / Semflex HP190** and equivalent **5.40mm (0.213") low-loss PTFE flexible coaxial cables**.

1. PHYSICAL & CONSTRUCTION SPECIFICATIONS

Construction Element	Material Specification	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Solid Silver Plated Copper (SPC)	1 / 1.60	1.60
Insulation Dielectric	Low-Density PTFE (LD-PTFE)	-	4.35
Inner Shield	Silver Plated Copper Strip	Helical Wrap	4.55
Outer Shield	Silver Plated Copper Braid Wire	Coverage ≥ 90%	4.95
Outer Jacket	Fluorinated Ethylene Propylene (Gray FEP)	-	5.40

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification Value	Parameter	Specification Value
Min. Bend Radius (Static)	27.0 mm	Cable Weight	0.075 kg/m
Min. Bend Radius (Dynamic)	54.0 mm	Operating Temperature	-55 ℃ to +165 ℃

3. ELECTRICAL PERFORMANCE PARAMETERS

Parameter	Value	Parameter	Value
Impedance	50 Ω	Dielectric Withstanding Voltage	2000 V DC
Capacitance	80 pF/m	Phase Change vs. Bending	±0.3 °/GHz
Velocity of Propagation (VP)	83%	Phase Change vs. Temperature	≤ 750 PPM (-45~+85℃)
Max. Operating Frequency	26.5 GHz	Screening Effectiveness	> 90 dB

4. ATTENUATION & POWER HANDLING DATA

Frequency (MHz)	Nom. Attenuation (@25℃, Sea Level) (dB/100m)	Max. Power Handling (@40℃, Sea Level) (W)
300	13.72	1780
500	17.80	1372
1000	25.40	962
3000	44.98	543
6000	64.96	376
8000	75.84	322
10000	85.60	285
12400	96.29	254
18000	118.37	206
20000	125.57	195
26500	147.21	166

Insertion Loss Formula: `IL = K1 * sqrt(F_MHz) + K2 * F_MHz (dB/100m)` | *K1 = 0.779036, K2 = 0.000770*