

PSE510L-26.5G-F

High-reliability flexible RF coaxial cable featuring a unique LD-PTFE dielectric interlayer for enhanced mechanical durability and stable electrical length up to 26.5 GHz.



- **LD-PTFE Interlayer:** Cushions inner and outer shield layers to maximize dynamic flex life.
- **Phase Stability:** Phase shift limited to $\pm 0.3^\circ/\text{GHz}$ during flexure.
- **Dual Shielding:** Silver-plated copper tape + braid provides $>90\text{ dB}$ shielding effectiveness.
- **FEP Jacket:** Durable 5.10mm outer sheath rated for -55°C to $+165^\circ\text{C}$ environments.

1. CONSTRUCTION & DIMENSION SPECIFICATIONS

Layer	Component Description	Material	Nom. O.D. (mm)
1. Inner Conductor	Center Conductor (1/1.40mm)	Silver Plated Copper	1.40
2. Insulation	Primary Dielectric Core	LD-PTFE	3.75
3. Inner Shield	Helical Tape Shield	Silver Plated Copper Strip	3.95
4. Interlayer	Isolation Layer	LD-PTFE	4.25
5. Outer Shield	Braided Shield	Silver Plated Copper Wire	4.65
6. Jacket	Protective Outer Sheath	Gray FEP	5.10

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Velocity of Propagation	83%
Capacitance	80 pF/m
Max Operating Freq.	26.5 GHz
Screening Effectiveness	$>90\text{ dB}$
Dielectric Withstanding Voltage	1000 V DC
Phase Change vs Bending	$\pm 0.3^\circ/\text{GHz}$
Phase Change vs Temp.	$\leq 750\text{ PPM}$

3. MECHANICAL & ENVIRONMENTAL

Min. Bend Radius (Static)	24.0 mm
Min. Bend Radius (Dynamic)	48.0 mm
Cable Weight	0.056 kg/m
Operating Temp. Range	-55°C to $+165^\circ\text{C}$

4. INDUSTRY CROSS-REFERENCE

Manufacturer	Reference Model
GORE	CXN3449
IW / Times / H+S	1801 / HF190 / Sucoflex103

5. ATTENUATION & POWER HANDLING RATINGS

$$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \text{ (dB/100m)} \mid K1 = 0.75040, K2 = 0.00033$$

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
300	13.1	1325
500	16.94	1024
1000	24.06	721
3000	42.09	412
6000	60.09	289
8000	69.74	249
10000	78.32	222
12400	87.63	198
18000	106.58	163
26500	130.85	133
30000	139.81	124