

PSE560LS-25G-F

Stranded Conductor Low Loss Phase Stable Coaxial Cable

The PSE560LS-25G-F is engineered for high-frequency microwave applications requiring maximum flexural life and phase stability up to 25 GHz. Built with a 19/0.29mm stranded inner conductor, LD-PTFE dielectric, and FEP outer jacket.



- **Frequency Range:** DC to 25 GHz
- **Inner Conductor:** Stranded Silver Plated Copper (19/0.29mm)
- **Dielectric:** Low-Density PTFE (Velocity of Propagation: 76%)
- **Phase Stability vs Flexure:** ±0.3 °/GHz
- **Thermal Phase Stability:** ≤ 1500 PPM (-45°C to +85°C)
- **Shielding Effectiveness:** > 90 dB

1. STRUCTURAL CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (Stranded)	19 / 0.29 mm	1.45
Insulation	LD-PTFE (Low-Density PTFE)	--	4.25
Inner Shield	Silver Plated Copper Strip Tape	--	4.45
Interlayer	LD-PTFE Tape	--	4.75
Outer Shield	Silver Plated Copper Wire Braid	--	5.15
Outer Jacket	Blue FEP	--	5.60

2. ELECTRICAL, MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Electrical Property	Value	Mechanical / Environmental	Value
Impedance	50 Ω	Min. Static Bend Radius	24.00 mm
Capacitance	88 pF/m	Min. Dynamic Bend Radius	48.00 mm
Velocity of Propagation	76%	Cable Weight	0.072 kg/m
Max Operating Frequency	25 GHz	Operating Temperature	-55°C to +85°C
Screening Effectiveness	> 90 dB	Phase Change VS Flexure	±0.3 °/GHz
Dielectric Voltage	2000 V DC	Phase Change VS Temp	≤ 1500 PPM

3. ATTENUATION & POWER HANDLING PERFORMANCE (@ SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] Constants: K1 = 0.880600 K2 = 0.000900

Frequency (MHz)	Nom. Attenuation (@25°C) [dB/100m]	Max. Power Handling (@40°C) [W]
500	20.14	1046
1000	28.75	733
2400	45.30	465
3000	50.93	414
6000	73.61	286
8000	85.96	245
10000	97.06	217
12400	109.22	193
15000	121.35	174
18000	134.34	157
20000	142.54	148

Cross-Reference / Replacement: Form-fit equivalent to high-flex 0.220" O.D. 25GHz phase-stable RF assemblies.