

PSE400L-34G-F

34GHz High Precision Phase Stable Coaxial Cable

- Frequency Range:** DC to 34 GHz
- Phase Stability:** ± 0.2 °/GHz vs Bending
- Amplitude Stability:** ± 0.03 dB @ 8GHz
- Special Layer:** LD-PTFE Interlayer
- Shielding Effectiveness:** > 90 dB



1. CONSTRUCTION & PHYSICAL DIMENSIONS

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.93	0.93
Insulation	Solid PTFE	-	3.00
Inner Shield	Silver Plated Copper Strip	-	3.20
Interlayer	LD-PTFE	-	3.50
Outer Shield	Silver Plated Copper Wire Braid	-	3.85
Jacket	Blue FEP	-	4.20

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bend Radius (Static)	21.0 mm	Operating Temp. Range	-55 °C to +125 °C
Min. Bend Radius (Dynamic)	42.0 mm	Nominal Weight	0.041 kg/m

3. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	Velocity of Propagation	70%
Max Operating Frequency	34 GHz	Capacitance	94 pF/m
Shielding Effectiveness	> 90 dB	Withstanding Voltage	1500 V DC
Phase Change vs Bending	± 0.2 °/GHz	Amplitude Stability	± 0.03 dB @ 8GHz

4. HIGH FREQUENCY ATTENUATION & POWER HANDLING

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.082677$, $K2 = 0.003337$

Frequency (MHz)	Attenuation (dB/100m @ 25°C)	Power Handling (W @ 40°C)
500	25.88	772
1000	37.57	532
2000	55.09	363
4000	81.82	244
6000	103.89	192
8000	123.53	162
10000	141.64	141
12400	161.94	123
16000	190.34	105
18000	205.32	97
26500	264.68	75