

PS1000L-12.4G-F

12.4GHz Low Loss Phase Stable Coaxial Cable (10mm)

The PS1000L-12.4G-F is a high-grade 50 Ohm RF coaxial cable engineered for stable microwave performance up to 12.4 GHz. Constructed with an LD-PTFE dielectric layer and silver-plated copper double shielding, it offers superior power handling, low attenuation, and high phase stability.



- Frequency Range:** DC to 12.4 GHz
- Velocity of Propagation:** 84%
- Screening Effectiveness:** > 90 dB
- Withstanding Voltage:** 4000 V DC
- Nominal Outer Diameter:** 10.00 mm

Structure & Mechanical Construction

Layer	Material	Nom. O.D. (mm)	Parameter	Specification Value
Inner Conductor	Silver Plated Copper (1/3.00mm)	3.00	Min. Bend Radius (Static)	50.0 mm
Insulation	LD-PTFE	8.24	Min. Bend Radius (Dynamic)	100.0 mm
Inner Shield	Silver Plated Copper Strip	8.56	Nominal Weight	0.206 kg/m
Outer Shield	Silver Plated Copper Braid	9.20	Operating Temp. Range	-55 °C to +165 °C
Jacket	Gray FEP	10.00		

Electrical Characteristics

Electrical Parameter	Standard Value	Electrical Parameter	Standard Value
Impedance	50 Ω	Capacitance	80 pF/m
Velocity Ratio	84%	Max Operating Frequency	12.4 GHz
Screening Effectiveness	> 90 dB	Dielectric Voltage	4000 V DC
Phase Change vs Bending	±0.3 °/GHz	Phase Change vs Temp.	≤ 750 PPM (-45~+85°C)

Attenuation & Power Handling (@ 25°C & Sea Level)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ (dB/100m) | $K1 = 0.31618$, $K2 = 0.00045$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
300	5.61	4516
500	7.29	3474
1000	10.45	2426
2000	15.04	1685
3000	18.66	1358
4000	21.79	1163
5000	24.60	1030
6000	27.18	932
8000	31.86	795
10000	36.10	702
12400	40.76	622