

PS400L-40G-P

Flexible Low Loss Phase Stable Coaxial Cable (40GHz / 50 Ohm)

Max Frequency: 40 GHz

Phase vs Bending: ±0.3 °/GHz

Velocity of Prop.: 83%

Outer Jacket: Black PUR

1. Structural Construction

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.91	0.91
Insulation	Low Density PTFE (LD-PTFE)	-	2.50
Inner Shield	Flat Silver Plated Copper Wrapped Strip	-	2.66
Outer Shield	Round Silver Plated Copper Braided Wire	-	3.11
Jacket	Black Polyurethane (PUR)	-	4.00

2. Electrical Characteristics

Impedance	50 Ω	Capacitance	80 pF/m
Max Operating Frequency	40 GHz	Velocity of Propagation	83 %
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	1000 V DC
Phase Stability vs Bending	±0.3 °/GHz	Phase Stability vs Temp (-45~+85°C)	≤ 750 PPM

3. Mechanical & Environmental Specifications

Min. Bending Radius (Static)	16.0 mm	Operating Temperature	-55 °C to +165 °C
Min. Bending Radius (Dynamic)	36.0 mm	Nominal Weight	0.032 kg/m

4. Attenuation & Power Handling Characteristics

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.16847, K2 = 0.00055$		
Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	26.40	725
1000	37.50	510
3000	65.65	292
4000	76.10	252
6000	93.81	204
8000	108.91	176
10000	122.35	156
12400	136.94	140
18000	166.67	115
26500	204.79	93
40000	255.69	75