



PS400L-40G-F

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: Gray FEP

1. Structural Construction

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 1.05	1.05
Insulation	Low Density PTFE (LD-PTFE)	-	2.90
Inner Shield	Silver Plated Copper Strip	-	3.10
Outer Shield	Silver Plated Copper Wire Braid	-	3.50
Jacket	Gray Fluorinated Ethylene Propylene (FEP)	-	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)	20.0 mm	Operating Temperature	-55 °C to +165 °C
Min. Bending Radius (Dynamic)	40.0 mm	Nominal Weight	0.036 kg/m
Replaceable Type Equivalent	Micro-Coax UFB142A		

4. Attenuation & Power Handling Characteristics

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ $K1 = 1.04317, K2 = 0.00018$		
Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	23.42	892
1000	33.17	630
3000	57.68	362
6000	81.88	255
8000	94.74	220
9000	100.58	208
10000	106.12	197
12400	118.39	176
18000	143.20	146
26500	174.59	120
40000	215.83	97