

PSE360L-40G-F

High Frequency Low Loss Phase Stable Cable (40 GHz)



Key Features & Capabilities:

- Operating Frequency: DC to 40 GHz with excellent VSWR performance.
- Low density ZF402 insulation providing 82% Velocity of Propagation.
- Triple shielding (>100 dB effectiveness) for maximum RF isolation.
- Excellent phase stability vs. bending (± 0.3 °/GHz) and temperature (≤ 450 PPM).
- Flexible, durable blue FEP jacket suitable for challenging environments (-55°C to +125°C).

1. STRUCTURE & MECHANICAL CONSTRUCTION

Item	Layer Element	Material Specification	Nom. O.D. (mm)
1	Inner Conductor	Silver Plated Copper (SPC) (1/0.93 mm)	0.93
2	Insulation	ZF402 Dielectric	2.55
3	Inner Shield	Silver Plated Copper Strip	2.72
4	Interlayer	High Temperature Aluminum Foil	2.85
5	Outer Shield	Silver Plated Copper Wire Braid	3.15
6	Jacket	Blue FEP	3.60

2. ELECTRICAL & ENVIRONMENTAL RATINGS

Impedance	50 Ω	Max Operating Frequency	40 GHz
Velocity of Propagation	82%	Capacitance	80 pF/m
Screening Effectiveness	>100 dB	Withstanding Voltage	2000 V DC
Phase Change vs. Bending	± 0.3 °/GHz	Phase Change vs. Temp.	≤ 450 PPM (-45~+85°C)
Min. Static Bend Radius	18.0 mm	Min. Dynamic Bend Radius	36.0 mm
Weight	0.033 kg/m	Operating Temperature	-55°C to +125°C

3. ATTENUATION & POWER HANDLING DATA

Calculation Formula: Insertion Loss IL = K1 * $\sqrt{(F_MHz)}$ + K2 * F_MHz (K1 = 1.261948, K2 = 0.00175)

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max. Power Handling (W @ 40°C)
100	12.79	1617
500	29.09	711
3000	74.37	278
6000	108.25	191
8000	126.87	163
9000	135.47	153
10000	143.69	144
12000	159.24	130
18000	200.81	103
26500	251.81	82
40000	322.39	64