

PS460L-40G

40GHz Low Loss Phase Stable Coaxial Cable

- Broadband Frequency Range: DC to 40 GHz
- Inner Conductor: Stranded Silver-Plated Copper (7 / 0.31 mm)
- Dielectric: Low-Density PTFE (76% VOP)
- Double Shielding: Silver Plated Copper Strip + Wire Braid (>90 dB)
- Outer Diameter: 4.60 mm (FEP/TPU Jacket)



PS460L-40G Structural
Cross-Section
Construction Cross-Section

1. CABLE CONSTRUCTION & MATERIALS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	0.92
	Construction	7 / 0.31 mm	
Insulation	Material	LD-PTFE	2.65
Inner Shield	Material	Silver Plated Copper Strip	2.85
Outer Shield	Material	Silver Plated Copper Wire	3.28
Jacket	Material	FEP / TPU (Blue)	4.60

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Max Operating Frequency	40 GHz
Velocity of Propagation	76%	Capacitance	87 pF/m
Screening Effectiveness	> 90 dB	Withstanding Voltage	1500 V DC
Phase Stability (Flexure @ 40GHz)	± 5°	Phase Stability (Temp -55 to +125°C)	≤ 1000 ppm

3. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Min. Bend Radius (Static)	23 mm	Min. Bend Radius (Dynamic)	46 mm
Weight	45 g/m	Operating Temperature	-55°C to +125°C

4. ATTENUATION & POWER HANDLING (@25°C & SEA LEVEL)

Insertion Loss Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.1850, K2 = 0.0028$

Frequency (GHz)	Nom. Attenuation (dB/m)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
0.5	0.28	27.9	480
1.0	0.40	40.3	335
2.4	0.65	64.8	210
5.0	0.98	97.9	142
10.0	1.47	146.5	95
18.0	2.08	208.3	68
26.5	2.62	262.1	54
34.0	3.06	306.2	46
40.0	3.39	339.4	41