

PS360LS-40G-F

40GHz High-Frequency Flexible Phase-Stable Coaxial Cable

Product Overview: PS360LS-40G-F is a high-performance 50 Ohm flexible coaxial cable designed for microwave applications up to 40 GHz. Featuring a stranded inner conductor, low-density PTFE dielectric, dual shielding, and an FEP jacket for wide temperature capability (-55°C to +125°C).



- **Frequency Range:** DC to 40 GHz
- **Inner Conductor:** 7/0.31 mm Stranded Silver Plated Copper
- **Impedance:** 50 Ω | **Velocity:** 76%
- **Shielding Effectiveness:** > 90 dB
- **Jacket Material:** Thermal & Chemical Resistant Blue FEP

1. Structure Characteristics

Layer	Item	Material	Nom. O.D. (mm)
Inner Conductor	7/0.31 mm Stranded Wire	Silver Plated Copper	0.92
Insulation	Low Density Dielectric	LD-PTFE	2.63
Inner Shield	Helical Tape Wrap	Self-adhesive Aluminium Foil	2.78
Outer Shield	Outer Braid Wire	Silver Plated Copper Wire	3.18
Jacket	Protective Outer Layer	Blue FEP	4.00

2. Electrical & Mechanical Specifications

Electrical Parameter	Value	Mechanical / Env. Parameter	Value
Impedance	50 Ω	Min. Bending Radius (Static)	18.0 mm
Capacitance	88 pF/m	Min. Bending Radius (Dynamic)	36.0 mm
Velocity of Propagation	76%	Weight	0.029 kg/m
Shielding Effectiveness	> 90 dB	Operating Temperature	-55°C to +125°C
Dielectric Withstanding Voltage	1000 V DC	Max Operating Frequency	40 GHz

3. Attenuation & Power Handling Performance

Attenuation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.261948$, $K2 = 0.002550$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C & Sea Level)
500	29.49	510
1000	42.46	354
2400	67.94	221
3000	76.77	196
6000	113.05	133
8000	133.27	113
10000	151.69	99
12400	172.14	87
18000	215.21	70
26500	273.01	55
40000	354.39	42