

PS220L-67G-F

67GHz High-Frequency Low-Loss Phase Stable Coaxial Cable

PS220L-67G-F is engineered for high-density, space-restricted microwave and mmWave applications requiring phase stability under dynamic bending up to 67 GHz.

- Dielectric:** Expanded Low-Density PTFE (LD-PTFE) with 81% VP
- Shielding:** Dual silver-plated copper strip & wire braid (>90 dB effectiveness)
- Phase Stability:** ± 0.3 °/GHz vs bending
- Jacket:** High-temperature Gray FEP (-55°C to +165°C)
- Form Factor:** Ultra-compact 2.20 mm O.D. with 8.8 mm static bend radius

Structure Diagram



1. STRUCTURAL SPECIFICATIONS

Layer	Material	Construction	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1 / 0.51 mm	0.51
Dielectric	Low-Density PTFE (LD-PTFE)	Solid Expanded	1.38
Inner Shield	Silver Plated Copper Strip	Helical Wrap	1.58
Outer Shield	Silver Plated Copper Wire	Braid	1.90
Jacket	Gray FEP	Extruded	2.20

2. MECHANICAL & ENVIRONMENTAL CHARACTERISTICS

Min. Bending Radius (Static)	8.8 mm	Weight	0.016 kg/m
Min. Bending Radius (Dynamic)	22.0 mm	Operating Temp. Range	-55°C to +165°C

3. ELECTRICAL PERFORMANCE

Impedance	50 Ω	Max Operating Frequency	67 GHz
Velocity of Propagation	81%	Screening Effectiveness	> 90 dB
Capacitance	80 pF/m	Dielectric Withstanding Voltage	500 V DC
Phase Stability vs Bending	± 0.3 °/GHz	Phase Stability vs Temp. (-45~+85°C)	≤ 750 PPM

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

Insertion Loss Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$ | $K1 = 1.975832$, $K2 = 0.001221$

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max. Power Handling (W @ 40°C)
1000	63.70	97
2000	90.80	68
3000	111.88	55
6000	160.37	39
8000	186.49	33
10000	209.79	29
18000	287.06	22
26500	354.00	17
40000	444.01	14
50000	502.86	12
67000	593.24	10