

PS230L-67G-F

Phase Stable Coaxial Cable Technical Datasheet



Key Performance Features

- Ultra-high frequency operation up to 67 GHz (mmWave band).
- Low loss performance with LD-PTFE dielectric technology (77% VP).
- Excellent phase stability vs. bending ($\pm 0.2^\circ/\text{GHz}$).
- Dual-shield structure delivering high screening effectiveness (>90 dB).
- Compact 2.30mm outer diameter for high-density interconnect environments.

1. CABLE CONSTRUCTION & DIMENSIONS

Construction Layer	Material Selection	Construction Details	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 0.53 mm	0.53
Insulation	Low Density PTFE (LD-PTFE)	—	1.50
Inner Shield	Silver Plated Copper Strip	—	1.66
Outer Shield	Silver Plated Copper Wire	—	1.98
Jacket	Aqua FEP	—	2.30

2. ELECTRICAL PARAMETERS

Impedance	50 Ω
Capacitance	88 pF/m
Velocity of Prop.	77%
Max Operating Freq.	67 GHz
Screening Effect.	>90 dB
Withstanding Volts	500 V DC
Phase vs Bending	$\pm 0.2^\circ/\text{GHz}$
Phase vs Temp.	≤ 1500 PPM

3. MECHANICAL & ENVIRONMENTAL

Static Min. Bend Radius	11.00 mm
Dynamic Min. Bend Radius	23.00 mm
Weight	0.017 kg/m
Operating Temp. Range	-55 ~ +165 $^\circ\text{C}$

Insertion Loss (IL) Formula:

$$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \quad (K1 = 2.177342, K2 = 0.001211)$$

4. ATTENUATION & POWER HANDLING PERFORMANCE MATRIX

Frequency (MHz)	Nom. Attenuation (dB/100m @ 25°C)	Max Power Handling (W @ 40°C)
500	49.29	651
1000	70.06	458
2400	109.57	293
3000	122.89	261
6000	175.92	182
8000	204.44	157
10000	229.84	140
12400	257.47	125
18000	313.92	102
26500	386.54	83
40000	483.91	66