

PS800L-18G

High Frequency Low Loss Phase Stable Coaxial Cable

- Maximum Operating Frequency: 18 GHz
- Velocity of Propagation: 76% (LD-PTFE Dielectric)
- High Power Handling Performance
- Screening Effectiveness: >90 dB
- Nominal Outer Diameter: 8.00 mm (Blue TPU Jacket)



1. CABLE CONSTRUCTION & STRUCTURAL SPECIFICATIONS

Structure Layer	Item / Parameter	Material / Specification	Nom. O.D. (mm)
Inner Conductor	Material	Silver Plated Copper	1.88
	Construction	19/0.38 mm	
Insulation	Material	LD-PTFE	5.55
Inner Shield	Material	Silver Plated Copper Strip	5.75
Outer Shield	Material	Silver Plated Copper Wire	6.26
Jacket	Material	Blue TPU	8.00

2. ELECTRICAL CHARACTERISTICS

Parameter	Specification	Parameter	Specification
Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	76%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	2500 V@DC
Phase Change vs. Bending	±0.3 °/GHz	Phase Change vs. Temp (-45~+85°C)	≤ 1500 PPM

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

Calculation Formula: $IL = K1 * \sqrt{F_MHz} + K2 * F_MHz$
Constants: $K1 = 0.517315$ $K2 = 0.001806$

Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W)
300	9.50	1543
500	12.47	1543
1000	18.16	807
2400	29.68	494
3000	33.75	434
6000	50.91	288
8000	60.72	241
10000	69.79	210
12400	80.00	183
15000	90.45	162
18000	101.91	144

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4. MECHANICAL & ENVIRONMENTAL PERFORMANCE

Property	Value / Requirement
Min Bending Radius (Static)	30.00 mm
Min Bending Radius (Dynamic)	60.00 mm
Weight	0.114 kg/m
Operating Temperature Range	-55 ~ +85 °C