

PS700L-19G

19GHz Phase Stable Coaxial Cable



Cross Reference: Direct Replacement for Tflex-401

PS700L-19G is a high-reliability 50 Ohm flexible microwave cable designed for phase-critical applications. Features double silver-plated copper shields (>90 dB effectiveness) and solid PTFE dielectric.

1. Structural Specifications

Layer	Material	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper (SPC)	1.63
Dielectric	Solid PTFE	5.45
Inner Shield	Silver Plated Copper Strip	5.65
Outer Shield	Silver Plated Copper Wire Braid	6.15
Jacket	FEP	7.00

2. Mechanical & Environmental Performance

Parameter	Value	Unit
Min. Bending Radius (Static)	35.0	mm
Min. Bending Radius (Dynamic)	70.0	mm
Weight	0.140	kg/m
Operating Temperature	-55 to +125	°C

3. Electrical Characteristics

Parameter	Value	Unit
Impedance	50	Ω
Capacitance	94	pF/m
Velocity of Propagation	70	%
Max Operating Frequency	19	GHz
Screening Effectiveness	> 90	dB
Dielectric Withstanding Voltage	3000	V DC
Phase Change vs Bending	±0.3	°/GHz

4. Attenuation & Power Handling (@25°C Sea Level)

Attenuation Formula: IL (dB/100m) = K1 * √(F_MHz) + K2 * F_MHz | **K1:** 0.688976, **K2:** 0.003937

Frequency (MHz)	Nom. Attenuation (dB/100m)	Max Power Handling (W @ 40°C)
300	13.11	1598
500	17.37	1598
1000	25.72	1079
2000	38.69	718
3000	49.55	560
6000	76.99	361
8000	93.12	298
10000	108.27	256
12400	125.54	221
15000	143.44	194
18000	163.30	170