

PS635L-18G-F

High Frequency Low Loss Phase Stable Coaxial Cable

- Operation Frequency: DC to 18 GHz
- Low Density PTFE (LD-PTFE) Dielectric for Ultra-Low Loss
- Triple Shielding Structure (Eff. > 90 dB)
- Phase Stability vs. Bending: ± 0.2 °/GHz
- High Temperature FEP Outer Sheath (-55°C to +200°C)



STRUCTURE & PHYSICAL CONSTRUCTION

Item	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 1.57	1.57
Insulation (Dielectric)	LD-PTFE	-	4.70
Inner Shield	Silver Plated Copper Strip	-	4.90
Interlayer	High Temperature Aluminium Foil	-	5.04
Outer Shield	Silver Plated Copper Wire	-	5.55
Jacket	Light Blue FEP	-	6.35

ELECTRICAL & MECHANICAL CHARACTERISTICS

Impedance	50 Ω	Capacitance	88 pF/m
Velocity of Propagation	78%	Max Operating Frequency	18 GHz
Screening Effectiveness	> 90 dB	Dielectric Withstanding Voltage	2500 V DC
Phase Change vs Bending	± 0.2 °/GHz	Phase Change vs Temp. (-45~+85°C)	≤ 1500 PPM
Min Bend Radius (Static)	30.00 mm	Min Bend Radius (Dynamic)	60.00 mm
Weight	0.092 kg/m	Operating Temperature	-55°C to +200°C

ATTENUATION & POWER HANDLING PERFORMANCE

IL Formula = $K1 * \sqrt{F_MHz} + K2 * F_MHz$ [dB/100m] | $K1 = 0.6923158$, $K2 = 0.000760$

Frequency (MHz)	Nominal Attenuation (dB/100m @ 25°C & Sea Level)	Max Power Handling (W @ 40°C & Sea Level)
300	12.22	1,850
500	15.86	1,425
1000	22.66	998
2000	32.48	696
3000	40.19	562
6000	58.19	388
8000	68.00	332
10000	76.83	293
12400	86.53	261
16000	99.71	226
18000	106.56	211