PS760L-18G-AF

18GHz Phase-Stable Low-Loss Coaxial Cable

Document No: SPEC-PS760L-18G-AF
Classification: Product Datasheet

Key Features & Applications:

- **Low-Density PTFE (LD-PTFE)** dielectric for reduced attenuation and phase stability.
- **Double Shielding Structure:** Silver-plated copper strip + silver-plated copper braid.
- **Superior Phase Stability:** ≤ ±0.3 °/GHz over flexure.
- **High Temperature Range:** -55°C to +165°C with Aqua FEP jacket.
- Ideal for radar, test & measurement, and aerospace interconnect systems.

Cross Reference: Direct equivalent replacement for **Astrolabe 32051**.

1. CONSTRUCTION SPECIFICATIONS

Layer	Material	Construction (mm)	Nom. O.D. (mm)
Inner Conductor	Silver Plated Copper	1 / 2.06	2.06
Insulation	LD-PTFE	-	6.05
Inner Shield	Silver Plated Copper Strip	-	6.25
Outer Shield	Silver Plated Copper Wire Braid	-	6.85
Jacket	Aqua FEP	-	7.60

2. ELECTRICAL CHARACTERISTICS

Impedance	50 Ω	**Max Operating Frequency**	18 GHz
Velocity of Propagation	77%	**Screening Effectiveness**	> 90 dB
Capacitance	87 pF/m	**Withstanding Voltage**	3000 V DC
Phase Change vs. Bending	±0.3 °/GHz	**Phase Change vs. Temp (-45~+85℃)**	≤ 1500 PPM

3. MECHANICAL & ENVIRONMENTAL DATA

Min. Static Bending Radius	38.00 mm	**Weight**	0.135 kg/m
Min. Dynamic Bending Radius	76.00 mm	**Operating Temp. Range**	-55 to +165 °C

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

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Attenuation Formula: IL = K1 * sqrt(F_MHz) + K2 * F_MHz (dB/100m) | K1 = 0.4736052, K2 =
0.001186495
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Frequency (MHz)	Attenuation (dB/100m)	Power Handling (W @ 40°C)
500	11.18	2756
1000	16.16	1907
3000	29.50	1045
4000	34.70	888
6000	43.80	704
8000	51.85	594
10000	59.23	520
12000	66.12	466
14000	72.65	424
16000	78.89	391
18000	84.90	363