

TECHNICAL SPECIFICATION

Document No: SPEC-PS160L-110G-BF
Product: PS160L-110G-BF RF Cable



PS160L-110G-BF Cross Section

PS160L-110G-BF

110 GHz Micro-Porous LD-PTFE Low Loss Phase Stable Coaxial Cable

Frequency: DC to 110 GHz

Dielectric: LD-PTFE

Velocity: 76% Nom.

Phase Stab.: ±0.2 °/GHz

Outer Dia.: 1.60 mm

Temp Range: -55 to +165 °C

1. STRUCTURE & MECHANICAL DATA

Layer	Material	O.D. (mm)	Parameter	Specification Value
Center Conductor	Silver Plated Copper (1/0.30)	0.30	Static Min. Bend Radius	8.0 mm
Dielectric	LD-PTFE	0.92	Dynamic Min. Bend Radius	16.0 mm
Inner Shield	Helical Ag Copper Strip	1.05	Weight	0.006 kg/m
Outer Shield	Silver Plated Copper Braid	1.25	Operating Temperature	-55 °C to +165 °C
Jacket	Blue FEP	1.60		

2. ELECTRICAL SPECIFICATIONS

Impedance	50 Ω	Capacitance	89 pF/m
Velocity of Propagation	76%	Max Operating Frequency	110 GHz
Shielding Effectiveness	> 90 dB	Dielectric Withstanding Voltage	500 V DC
Phase Change vs Bending	±0.2 °/GHz	Phase Change vs Temperature	≤ 1500 PPM (-45~+85°C)

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

$$IL = K1 * \sqrt{F_MHz} + K2 * F_MHz \mid K1 = 3.557846, K2 = 0.001221$$

Freq. (MHz)	Atten. (dB/100m)	Power (W @ 40°C)	Freq. (MHz)	Atten. (dB/100m)	Power (W @ 40°C)
300	61.99	150	18000	499.31	19
500	80.17	116	26500	611.53	15
1000	113.73	82	40000	760.41	12
3000	198.53	47	50000	856.61	11
6000	282.92	33	67000	1002.73	9
12000	404.39	23	110000	1314.31	7