

KL-500AW — Solid-Type Phase-Stable Coaxial Cable

Solid-Type, Low-Loss, Phase-Stable Coaxial Cable — Reinforced Construction



Structure & Materials

Element	Dimension (mm)	Material
Center Conductor	1.45	Silver-Plated Copper
Dielectric	3.99	Low-Density PTFE
Inner Shield	4.19	Silver-Plated Copper Tape
Middle Layer	4.45	Low-Density PTFE (Reinforcement)
Outer Shield	4.85	Silver-Plated Copper Braid
Outer Jacket	5.40	Gray/Green PFA or FEP (Custom Colors Available)

Electrical Properties

Parameter	Value
Operating Frequency	DC – 26.5 GHz
Cutoff Frequency	29 GHz
Characteristic Impedance	50 Ω
Velocity of Propagation	83%
Shielding Effectiveness	> 90 dB
Dielectric Withstanding Voltage	1500 V DC

Attenuation & Power Handling (Typical, 25°C / 40°C)

Frequency (MHz)	1000	2000	3000	6000	8000	10000	12400	18000	26500
Attenuation (dB/100m)	23.4	33.3	41.0	58.5	67.9	76.3	85.4	103.8	127.5
Avg. Power (kW)	1.128	0.793	0.645	0.451	0.389	0.346	0.309	0.254	0.207

Mechanical & Environmental

Static Bend Radius	Dynamic Bend Radius	Weight	Operating Temperature
27 mm	54 mm	0.063 kg/m	–55°C ~ +165°C

Features & Benefits

- Phase-stable across temperature (<750 ppm, –55°C to +85°C)
- Low insertion loss
- High power handling
- Low PIM (–155 dBc)
- Lightweight construction

Typical Applications

- Phased-array radar
- Airborne electronics
- Electronic warfare (EW)
- Any application demanding tight loss and phase tolerance