

KL-400AW — Solid-Type Phase-Stable Coaxial Cable

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



Structure & Materials

Element	Dimension (mm)	Material
Center Conductor	1.05	Silver-Plated Copper
Dielectric	2.85	Low-Density PTFE
Inner Shield	3.05	Silver-Plated Copper Tape
Middle Layer	3.30	Low-Density PTFE (Reinforcement)
Outer Shield	3.65	Silver-Plated Copper Braid
Outer Jacket	4.20	Gray/Green PFA or FEP (Custom Colors Available)

Electrical Properties

Parameter	Value
Operating Frequency	DC – 40 GHz
Cutoff Frequency	41 GHz
Characteristic Impedance	50 Ω
Velocity of Propagation	82%
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	40000
Attenuation (dB/100m)	33.5	47.5	58.3	82.8	95.8	107.2	119.7	144.7	176.4	218.1
Avg. Power (kW)	0.634	0.447	0.365	0.257	0.222	0.198	0.178	0.147	0.120	0.097

Mechanical & Environmental

Static Bend Radius	Dynamic Bend Radius	Weight	Operating Temperature
21 mm	42 mm	0.037 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