

KL-830A — Low-Loss Phase-Stable Coaxial Cable
Low-Loss, Phase-Stable Coaxial Cable — Flexible Construction



Structure & Materials

Element	Dimension (mm)	Material
Center Conductor	2.44	Silver-Plated Copper
Dielectric	6.50	Low-Density PTFE
Inner Shield	6.90	Silver-Plated Copper Tape
Outer Shield	7.65	Silver-Plated Copper Braid
Outer Jacket	8.30	FEP, Teal (Custom Colors Available)

Electrical Properties

Parameter	Value
Operating Frequency	DC – 18 GHz
Cutoff Frequency	18 GHz
Characteristic Impedance	50 Ω
Velocity of Propagation	83%
Shielding Effectiveness	> 90 dB
Dielectric Withstanding Voltage	3000 V DC

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

Frequency (MHz)	1000	2000	3000	6000	8000	10000	12400	16000	18000
Attenuation (dB/100m)	13.3	18.9	23.4	33.6	39.1	44.1	49.5	56.9	60.6
Avg. Power (kW)	2.433	1.703	1.380	0.960	0.824	0.731	0.651	0.567	0.532

Mechanical & Environmental

Static Bend Radius	Dynamic Bend Radius	Weight	Operating Temperature
42 mm	83 mm	0.162 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