

TLbend Series High-Strength Phase-Stable Flexible RF Cable

04



TLBEND SERIES: HIGH-STRENGTH PHASE-STABLE FLEXIBLE RF CABLE

This cable delivers exceptional bend performance, high cable retention strength, and outstanding phase stability, specifically engineered for internal point-to-point interconnects between RF modules within high-density systems. Superior Flexibility, Bendable directly from the connector root. Mechanical Durability, Reinforced strain relief design for vibration-prone environments. Phase Stability, Environmental Resistance, Flame-retardant FEP jacket (UL94 V-0 rated).

Typical Applications

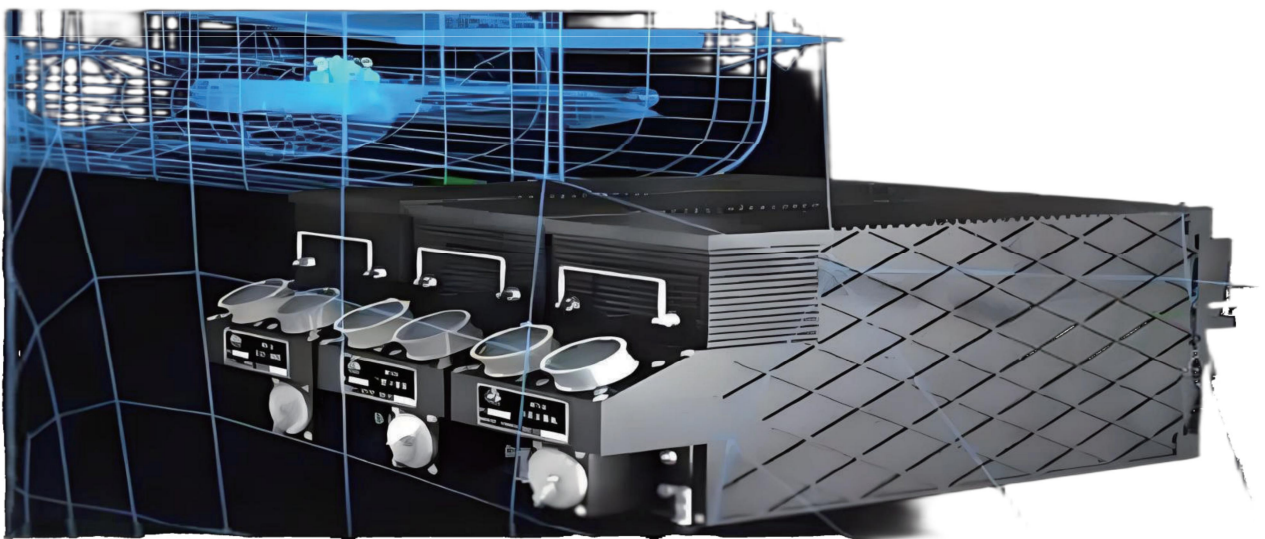
- Radar Systems
- Avionics
- Military Platforms
- 5G Infrastructure: Dense antenna array feeder cables

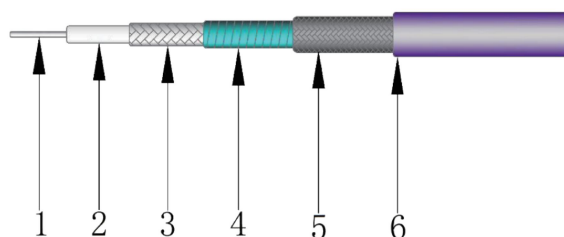
Product Features

- Operating frequency up to 50GHz
- Superior Flexibility
- Mechanical Durability
- Phase Stability
- Environmental Resistance

Equivalent Cable Replacement Table

Talent Model	Replacement Model	Replacement Brand
TLbend086	32081	ASTROLAB
TLbend086H	32022	ASTROLAB
TLbend141	32024	ASTROLAB



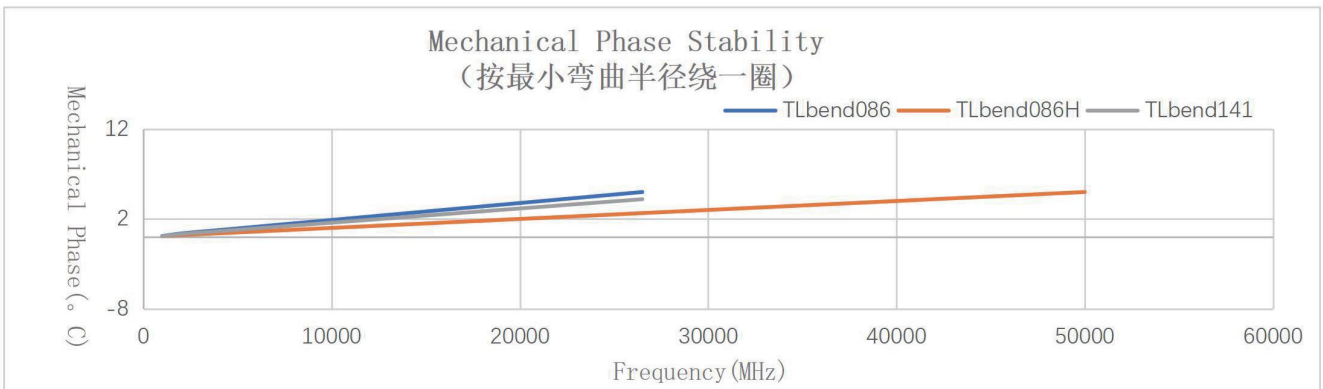
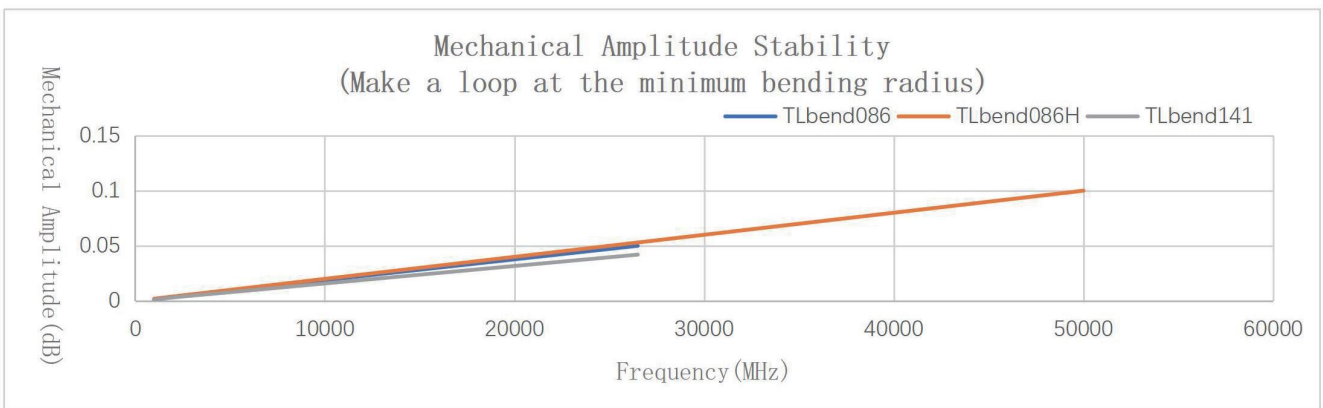
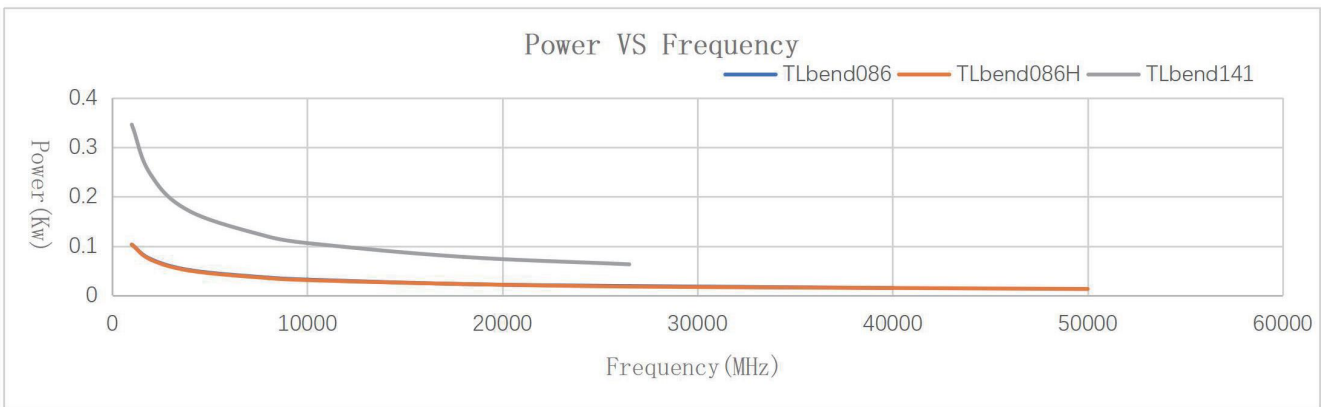
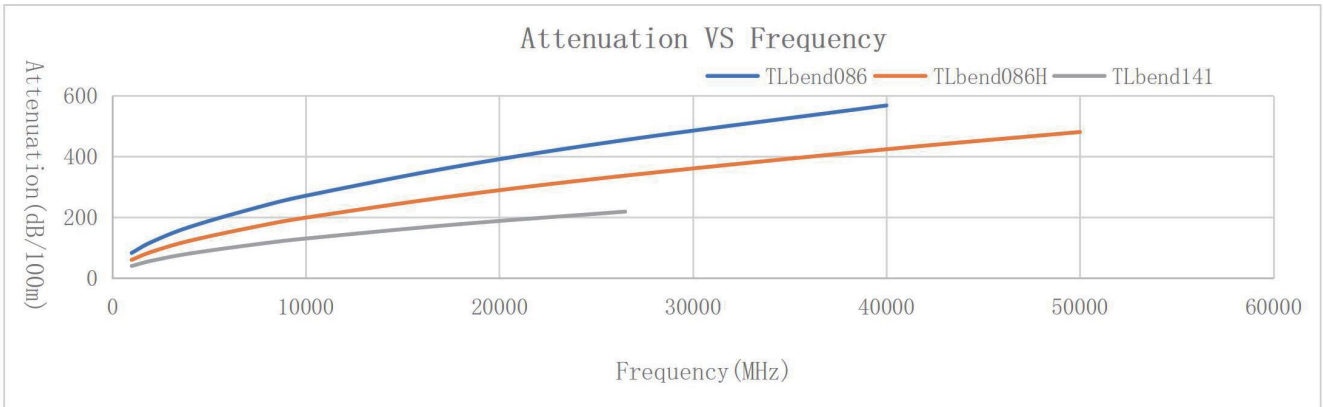


- 1-Center Conductor——SPC
- 2-Dielectric——PTFE
- 3-Outer Conductor ——SPC tape
- 4-Interlayer——Aluminum foil
- 5-Outer Shield——Stainless steel wire
- 6-FEP Jacket——FEP

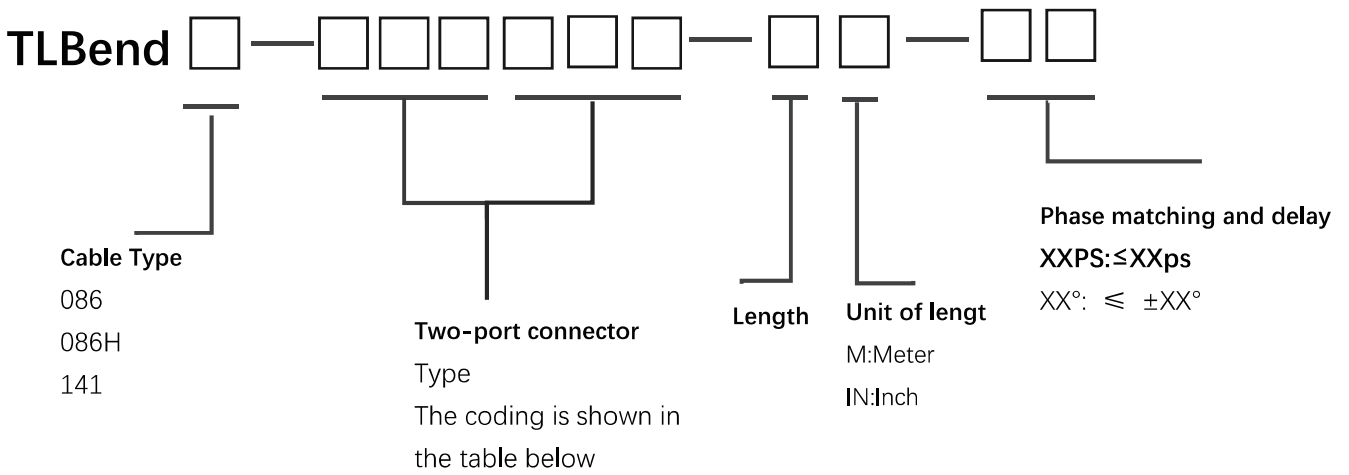
► Cable Specification

Model	TLbend086		TLbend086H		TLbend141			
Mechanical Specifications								
Center Conductor	0.51		0.56		0.72			
Dielectric	1.65		1.70		2.10			
Inner Shield	1.83		1.86		2.30			
Interlayer	1.93		1.96		2.50			
Outer Shield	2.16		2.19		2.95			
Jachkt	2.50		2.64		3.60			
Electrical Specifications								
Impedance(Ω)	50		50		50			
Velocity of Propagation(%)	70		76		76			
Shielding Effectiveness (dB)	< -90		< -90		< -90			
Time Delay (ns/m)	4.76		4.38		4.38			
Voltage Withstand(V,DC)	800		450		600			
Operating Frequency(GHz)	40		50		26.5			
Static Bending Radius (mm)	13		13		18			
Dynamic Bending Radius (mm)	25		25		36			
Operating Temperature ($^{\circ}\text{C}$)	-55~150		-55~165		-55~165			
Weight (g/m)	18		17		31			
Attenuation(+25$^{\circ}\text{C}$ Ambient)&Power Handling(+40$^{\circ}\text{C}$ Ambient;SeaLevel;VSWR 1:1)								
Frequency (MHz)	dB/100m		KW		dB/100m		KW	
1000	82.91		0.103		60.12		0.103	
2000	118.02		0.073		85.78		0.072	
4000	168.42		0.051		122.84		0.050	
8000	241.23		0.036		176.76		0.035	
10000	271.08		0.032		199.00		0.031	
18000	369.65		0.023		272.95		0.023	
26500	454.58		0.019		337.24		0.018	
40000	568.16		0.015		424.00		0.015	
50000					480.91		0.013	
K1	2.5808091		1.8600000		1.23807			
K2	0.0013000		0.0013000		0.0006499			

► Test Data



► Assembly Selection Information



Optional Connectors

Connector Code	Connector Type	Operating Frequency	TLbend086	TLbend086H	TLbend141	VSWR
2.4M	2.4mm Male	DC-50GHz		●		1.30
2.4F	2.4mm Female	DC-50GHz		●		1.30
2.92M	2.92mm Male	DC-40GHz	●			1.30
2.92F	2.92mm Female	DC-40GHz	●			1.30
SMAM	SMA Male	DC-27GHz		●	●	1.30
SMAWM	SMA Male Right Angle	DC-18GHz		●	●	1.30
SMAF	SMA Female	DC-27GHz	●	●	●	1.30