

Ultra-Low Loss Phase and Amplitude Stable Flexible Cable

LP230P

Features & Benefits

- Excellent phase stability with flexure 67GHz $\leq 7^\circ$
- Low VSWR and low loss to 67GHz
- Available in armor options
- Robust for test use with multi-layer protection
- Bulk cables from stock
- Alternative to Gore CXN3506

Cable Construction

No.	Construction	Size (mm)	Materials
1	Center Conductor	0.51	Solid silver-plated copper
2	Dielectric	1.60	Low density PTFE
3	Outer Conductor	1.70	Silver-plated copper tape wrap
4	Interlayer	2.00	Low density PTFE
5	Outer Shield	2.25	Silver-plated copper wire braid
6	Jacket	2.60	FEP



Electrical

Frequency	DC-67 GHz
Impedance	50 Ω
Velocity of Propagation	74%
Shielding Effectiveness	>90 dB
Withstanding Voltage	500 V
*Mechanical Phase Stability	$< \pm 7^\circ$
Amplitude Stability vs Shaking	$< \pm 0.15\text{dB}$
Temp Phase Stability	$< 1500\text{ppm}(-40^\circ\text{C to } +85^\circ\text{C})$

* Wrapped 360° around a 26mm radius mandrel.

Mechanical & Environmental

Min. Bending Radius Static	13mm
Min. Bending Radius Repeated	26mm
Weight	18g/m
Temperature(Operation)	-50 ~ 150 $^\circ\text{C}$
Temperature(Storage)	-60 ~ 160 $^\circ\text{C}$

Attenuation(Typical@25 $^\circ\text{C}$ & VSWR=1.0) & Power(VSWR=1.0; 40 $^\circ\text{C}$; Sea level)

Frequency MHz	1000	2000	4000	6000	8000	10000	12000	18000	26500	40000	50000	67000
dB/100 Meter	63.1	90.1	129.1	159.7	186.0	209.5	231.0	287.7	355.9	448.0	508.5	601.9
Avg. Power kW	0.271	0.190	0.132	0.107	0.092	0.082	0.074	0.059	0.048	0.038	0.034	0.029
Attenuation at any frequency = $[1.95000 \times \text{SQRT}(\text{FMHz})] + [0.001450 \times \text{FMHz}]$												

Available connectors

Cable P/N	Connectors	Gender	Orientation	Mounting	Max Freq.(GHz)	VSWR Max
LP230P	SMA	M/F	Straight	Standard	26.5	1.25
LP230P	2.92mm	M/F	Straight	Standard	40	1.3
LP230P	2.4mm	M/F	Straight	Standard	50	1.35
LP230P	1.85mm	M/F	Straight	Standard	67	1.4/1.45

Other connectors available upon request.