

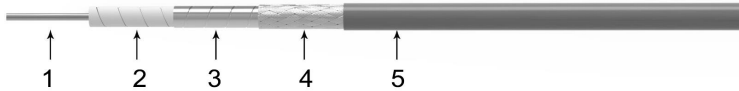
Ultra-Low Loss Phase and Amplitude Stable Flexible Cable

LP220

Features & Benefits

- Excellent phase stability with flexure 67GHz $\leq 8^\circ$
- Very low VSWR and loss to 67GHz
- 086 small size, highly flexible
- Temperature phase stability $< 700\text{ppm}(-40^\circ\text{C to } +85^\circ\text{C})$
- Available in a wide choice of connectors
- Alternative to Gore CXN3506

Cable Construction



No.	Construction	Size (mm)	Materials
1	Center Conductor	0.51	Solid silver-plated copper
2	Dielectric	1.43	Ultra-low density PTFE
3	Outer Conductor	1.55	Silver-plated copper tape wrap
4	Outer Shield	1.85	Silver-plated copper wire braid
5	Jacket	2.20	FEP



Electrical

Frequency	DC-67 GHz
Impedance	50 Ω
Velocity of Propagation	81%
Shielding Effectiveness	$> 90\text{ dB}$
Withstanding Voltage	500 V
*Mechanical Phase Stability	$< \pm 5^\circ @ 40\text{GHz}$, $< \pm 8^\circ @ 67\text{GHz}$
Amplitude Stability vs Shaking	$< \pm 0.15\text{dB} @ 40\text{GHz}$, $\pm 0.2\text{dB} @ 67\text{GHz}$
Temp Phase Stability	$< 700\text{ppm}(-40^\circ\text{C to } +85^\circ\text{C})$

* Wrapped 360° around a 22mm radius mandrel.

Mechanical & Environmental

Min. Bending Radius Static	11mm
Min. Bending Radius Repeated	22mm
Weight	18g/m
Temperature(Operation)	$-50 \sim 150^\circ\text{C}$
Temperature(Storage)	$-60 \sim 160^\circ\text{C}$

Attenuation(Typical@25°C & VSWR=1.0) & Power(VSWR=1.0; 40°C; Sea level)

Frequency MHz	300	1000	2000	3000	6000	12000	18000	26500	30000	40000	50000	67000
dB/100 Meter	34.3	63.3	90.3	111.3	159.8	230.7	286.9	354.3	379.4	445.2	504.8	596.4
Avg. Power kW	0.510	0.277	0.194	0.157	0.110	0.076	0.061	0.049	0.046	0.039	0.035	0.029

Attenuation at any frequency = $[1.96000 \times \text{SQRT}(\text{FMHz})] + [0.001330 \times \text{FMHz}]$

Available connectors

Cable P/N	Connectors	Gender	Orientation	Mounting	Max Freq.(GHz)	VSWR Max
LP220	SMA	M/F	Straight	Standard	26.5	1.3
LP220	2.92mm	M/F	Straight	Standard	40	1.3
LP220	2.4mm	M/F	Straight	Standard	50	1.35
LP220	1.85mm	M/F	Straight	Standard	67	1.4
LP220	SSMA	Male	Straight	Standard	33	1.4
LP220	SMP/SMPM	Female	Right Angle	Standard	40	1.35 (26.5GHz) 1.5 (40GHz)
LP220	SMP/SMPM	M/F	Straight	Standard	40	1.4
LP220	SMPM	Female	Straight	Two hole flange	40	1.4

Other connectors available upon request.