

The LA Series provides the best available combination of low attenuation, phase stability and mechanical performance. The signal loss at 18GHz for LA290S cable is <20 dB/100 ft with 0.290" overall diameter and for LA190S it is <37 dB/100 ft with 0.190" diameter. The carefully engineered construction provides excellent bend and crush resistance properties when compared to other ultra-low loss cables. This cable series is the best choice for phase stability over temperature* and flexure as outlined in electrical performance data.

Electrical Properties

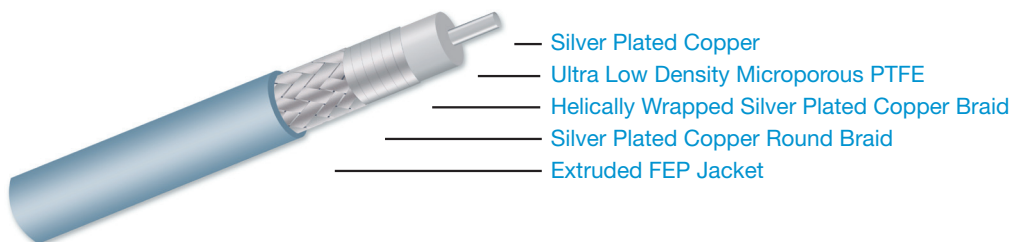
	LA190S	LA290S
Impedance (ohms)	50	50
Capacitance (pf/ft)	23.8	24
Inductance (nH.ft)	59	59
Shielding Effectiveness (dB)	>100	>100
Cut off Frequency (GHz)	28	19.7
Velocity of Propagation (%)	85	83
Breakdown Voltage (KV)	>10	>15
Max Structural VSWR	1.20:1	1.20:1

Mechanical Properties

	LA190S	LA290S
Jacket O.D. (in)	0.189	0.292
Round Braid O.D. (in)	0.174	0.267
Helical Braid O.D. (in)	0.158	0.249
Dielectric O.D. (in)	0.147	0.235
Center Conductor O.D. (in)	0.055	0.089
Center Conductor Type	Solid	Solid
Inside Minimum Bend Radius (in)	1.1	1.600
Operating Temperature (°C)	-65/+200	-65/+200
Weight (lbs/ft)	0.034	0.090

Cable Construction

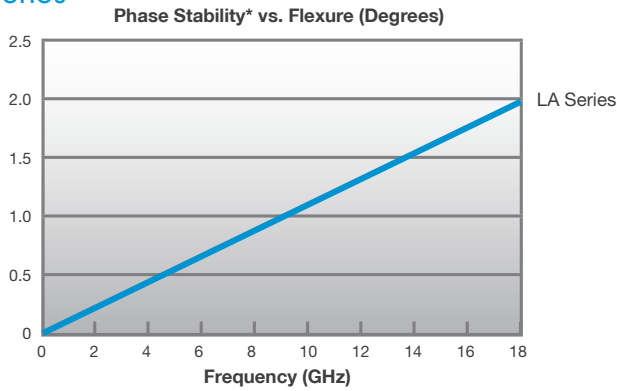
The LA Series uses silver plated inner and outer conductors for excellent attenuation performance. The ultra low density microporous PTFE dielectrics and FEP jackets are engineered to provide the optimum combination of mechanical characteristics and stable electrical performance over temperature extremes. Low loss, phase stability, and shielding effectiveness of >100 dB results from combining a helically served flat braid with a 97% coverage round braid.



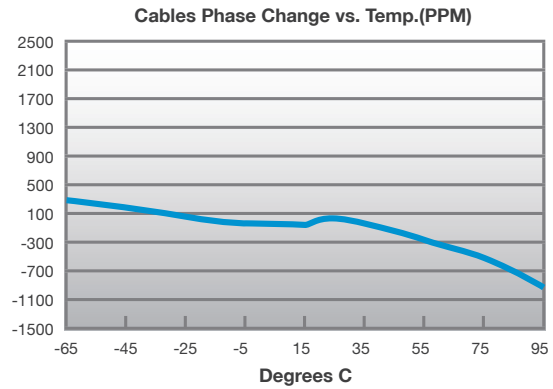
NOTE: Our LA Series published temperature range defines the hot and cold temperature extremes the cable will perform at. This is based on the material properties that are used to construct the LA Series cable. However, there are no implied performance guarantees with respect to rapid temperature excursions between hot and cold extremes in a thermal shock situation. Semflex can not predict the rate of temperature change or the number of temperature excursions our product will experience in all possible customer applications; therefore we do not give a blanket statement of guaranteed product performance for something as strenuous as thermal shock.

LA SERIES CABLE

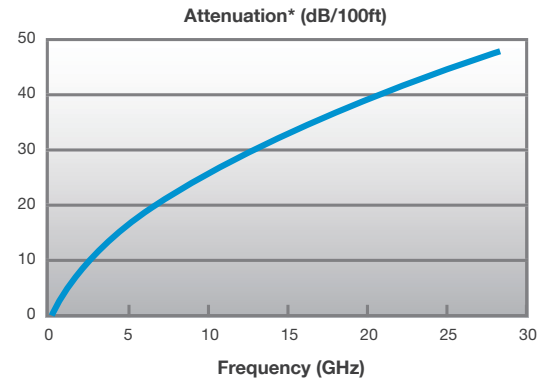
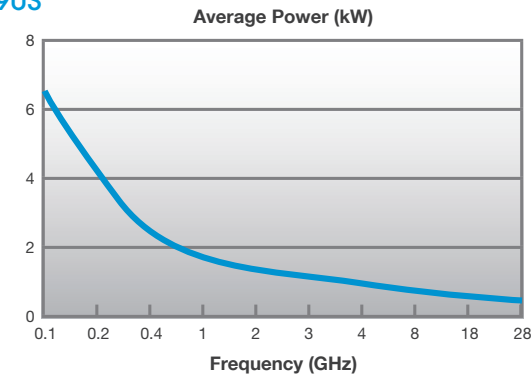
LA Series



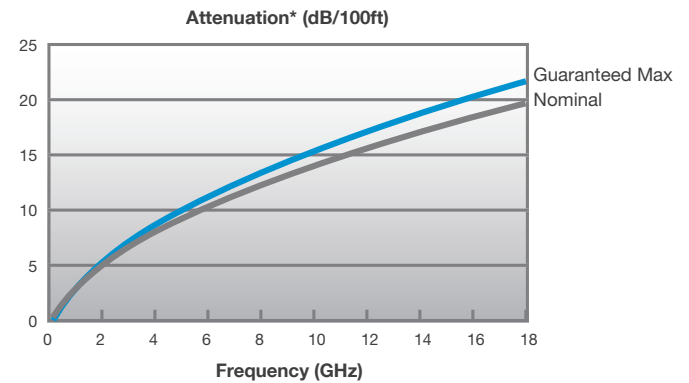
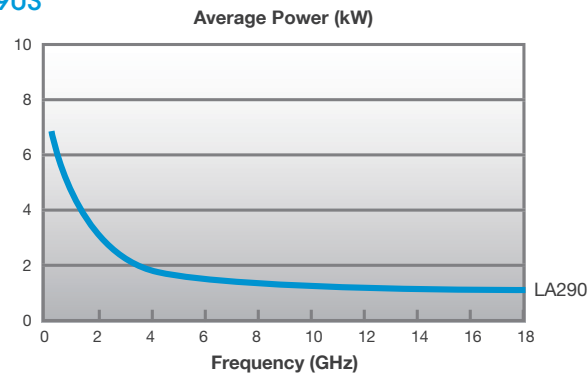
*Phase stability is defined as the change in phase when the cable is bent 360 degrees around its minimum bend radius.



LA190S



LA290S



*Attenuation (dB/100 ft)

GHz	Guaranteed Max	
	LA190S	LA290S
0.45	5.09	2.93
1	7.7	4.43
3	13.7	7.90
6	20	11.50
12	29.4	16.91
18	37.1	21.32
28	47.9	N/A
*k1	7.38	4.240
*k2	0.32	0.185

*Attenuation at any frequency = $(k1 \times \sqrt{\text{freq}(\text{GHz})}) + (k2 \times \text{freq}(\text{GHz}))$