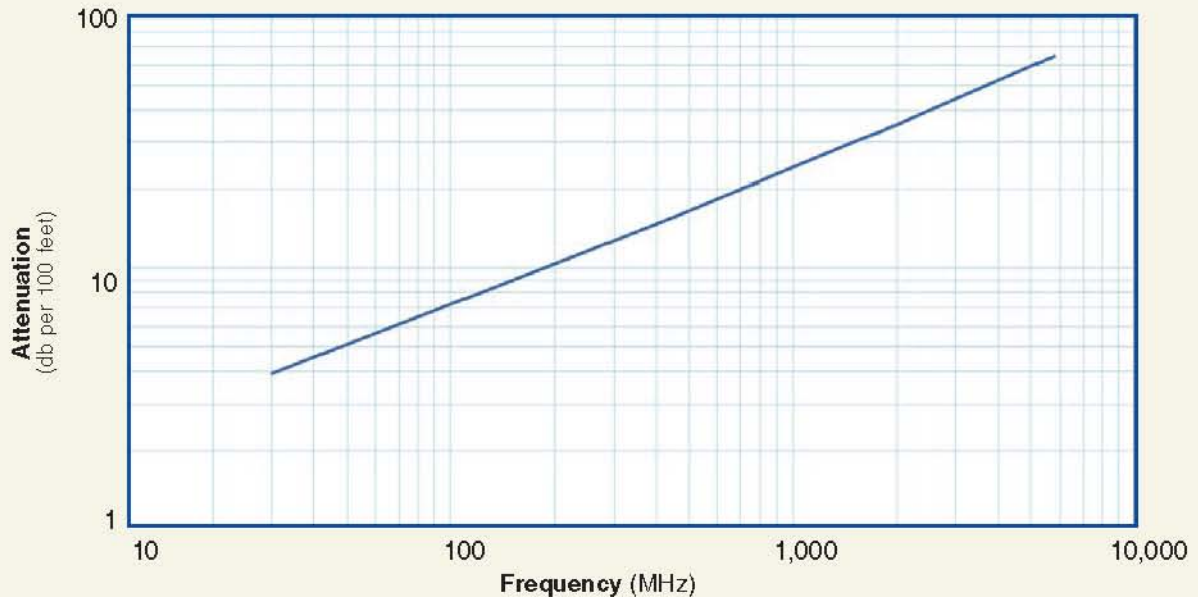


LMR-100A Flexible Low Loss Communications RF Coax

LMR-100A

Attenuation vs. Frequency (typical)



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800
Attenuation dB/100 ft	3.9	5.1	8.9	10.9	15.8	22.8	30.1	33.2	35.2	39.8	64.1
Attenuation dB/100 m	12.9	16.7	29.4	35.8	51.9	74.9	98.7	109.0	115.5	130.6	210.3
Avg. Power kW	0.230	0.180	0.100	0.083	0.057	0.039	0.029	0.027	0.025	0.022	0.013

Calculate Attenuation = $(0.709140) \cdot \sqrt{FMHz} + (0.001740) \cdot FMHz$
 Attenuation: VSWR=1.0; Ambient = +25°C (77°F) Power: VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F);
 Sea Level; dry air; atmospheric pressure; no solar loading



Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BCCS	0.018	(0.46)
Dielectric	Solid PE	0.060	(1.52)
Outer Conductor	Aluminum Tape	0.065	(1.65)
Overall Braid	Tinned Copper	0.083	(2.11)
Jacket	(see table above)	0.110	(2.79)

Electrical Specifications			
Performance Property	Units	US	(metric)
Cutoff Frequency	GHz		90
Velocity of Propagation	%		66
Dielectric Constant	NA		2.30
Time Delay	nS/ft (nS/m)	1.54	(5.05)
Impedance	ohms		50
Capacitance	pF/ft (pF/m)	30.8	(101.1)
Inductance	uH/ft (uH/m)	0.077	(0.25)
Shielding Effectiveness	dB		>90
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	81.0	(266)
Outer Conductor	ohms/1000ft (/km)	9.5	(31.2)
Voltage Withstand	Volts DC		500
Jacket Spark	Volts RMS		2000
Peak Power	kW		0.6

- ▶ **Flexibility and Bendability** are hallmarks of the LMR-100A cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.
- ▶ **Low Loss** is another hallmark feature of LMR-100A. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.
- ▶ **RF Shielding** is 50dB greater than typical single shield coax (40dB). The multi-ply bonded foil outer conductor is rated consecutively at >90dB (i.e. >180 dB between two adjacent cables).
- ▶ **Weatherability:** LMR-100A cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.