

LMR® lite-600 Flexible Low Loss Communications Coax

Ideal for...

- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable



• **LMR-LW600** is a lightweight low loss coaxial cable that employs an aluminum braid shield instead of the traditional tinned copper shield. LMR-LW600 has been designed and engineered with a combination of electrical, physical and mechanical properties that reduce weight and cost.

• **Flexibility** and bendability that are hallmarks of LMR-600 are also the same for LMR-LW600. 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-LW600. Size for size LMR® has the lowest loss of any flexible cable and comparable loss to semi rigid hard-line cables.

• **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).

• **Weatherability:** LMR-LW600 cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors:** LMR-LW600 uses the same connectors, tools and installation accessories as standard LMR®. A wide variety of connectors are available for LMR-LW600 including all common interface types, reverse polarity, and a choice of solder

or non-solder center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies:** All LMR-LW600 cable types are available as pre-terminated cable assemblies.

Part Description				Stock Code
Part Number	Application	Jacket Color		
LMR-LW600	Outdoor	PE Black		45003

PE = Polyethylene

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BCCA1	0.176	(4.47)
Dielectric	Foam PE	0.455	(11.56)
Outer Conductor	Aluminum Tape	0.461	(11.71)
Overall Braid	Aluminum	0.490	(12.45)
Jacket	(see table above)	0.590	(14.99)

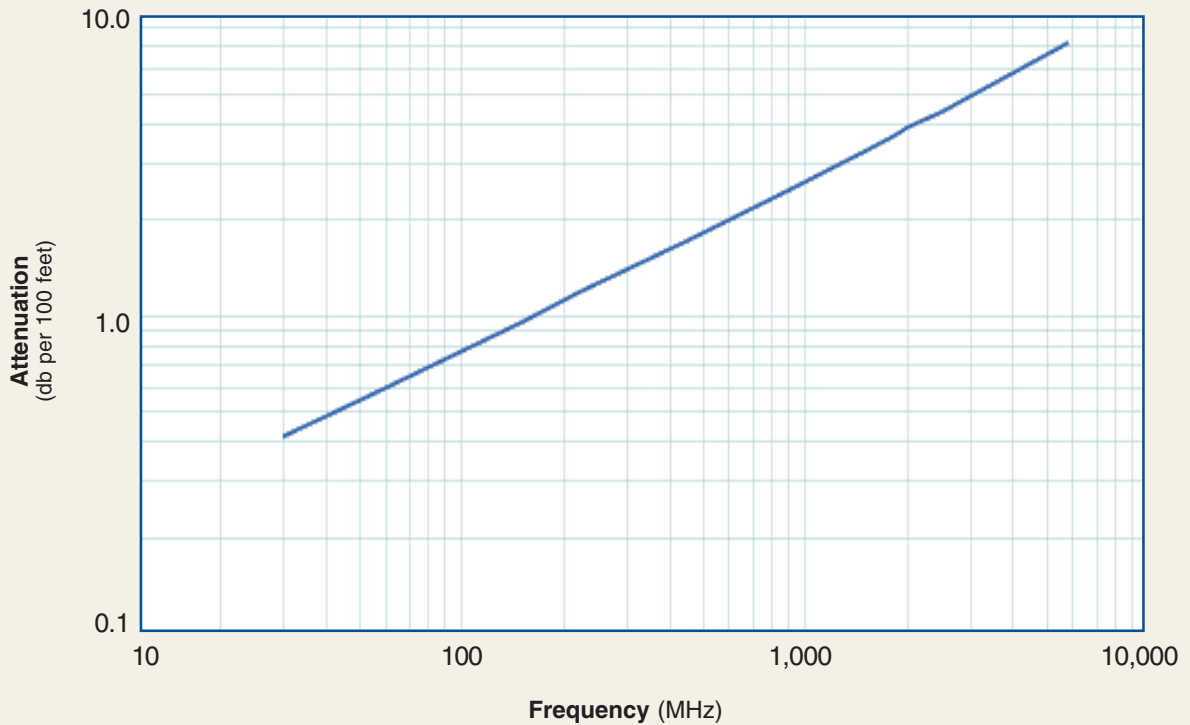
Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	1.50	(38.1)
Bend Radius: repeated	in. (mm)	6.0	(152.4)
Bending Moment	ft-lb (N-m)	2.75	(3.73)
Weight	lb/ft (kg/m)	.099	(.147)
Tensile Strength	lb (kg)	260	(118.0)
Flat Plate Crush	lb/in. (kg/mm)	60	(1.07)

Environmental Specifications		
Performance Property	°F	°C
Installation Temperature Range	-40/+185	-40/+85
Storage Temperature Range	-94/+185	-70/+85
Operating Temperature Range	-40/+185	-40/+85

TIMES MICROWAVE

Electrical Specifications			
Performance Property	Units	US	(metric)
Cutoff Frequency	GHz		10.3
Velocity of Propagation	%		87
Dielectric Constant	NA		1.32
Time Delay	nS/ft (nS/m)	1.17	(3.83)
Impedance	ohms		50
Capacitance	pF/ft (pF/m)	23.4	(76.6)
Inductance	uH/ft (uH/m)	0.058	(0.19)
Shielding Effectiveness	dB		>90
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	0.53	(1.7)
Outer Conductor	ohms/1000ft (/km)	4.4	(14.8)
Voltage Withstand	Volts DC		4000
Jacket Spark	Volts RMS		8000
Peak Power	kW		40

Attenuation vs. Frequency (typical)



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800
Attenuation dB/100 ft	0.4	0.5	1.0	1.2	1.7	2.5	3.3	3.7	3.9	4.4	7.3
Attenuation dB/100 m	1.4	1.8	3.2	3.9	5.6	8.2	10.9	12.1	12.8	14.5	23.8
Avg. Power kW	5.51	4.24	2.41	1.97	1.35	0.93	0.70	0.63	0.59	0.52	0.32

Calculate Attenuation = $(0.075550) \cdot \sqrt{FMHz} + (0.000260) \cdot FMHz$ (interactive calculator available at <http://www.timesmicrowave/telecom>)

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