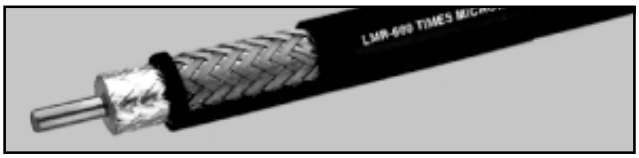
LMR-600

Flexible Communications Cable

Ideal for…

- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, LMR, Paging, PCS, Cellular) requiring an easily routed, low loss RF cable



- **Flexible:** With a 1-1/2 inch minimum bend radius, LMR-600 cable can be easily routed into and through tight spaces without kinking. The LMR bonded-tape outer conductor provides superior flexibility and ease of bending compared to superflexible corrugated copper or smooth wall copper hardline cables.
- **Low Loss:** LMR-600 has the lowest loss of any ½" superflex type cable. This is achieved through the use of a high velocity gas-injected closed cell foam dielectric and bonded aluminum tape outer conductor. The bonded aluminum tape outer conductor provides loss comparable to low density foam and much lower loss than ½" superflex corrugated copper cable.
- **Weatherproof:** The UV protected black polyethylene jacket makes the cable rugged and resistant to the full range of outdoor environments. The DB version of the cable includes a water blocking material within the braid to protect the cable from moisture ingress and eliminate any potential for corrosion in harsh environments or should the jacket become damaged. Various jacket materials are available to address other indoor and outdoor requirements.
- **RF Shielding:** The bonded aluminum tape outer conductor is overlapped to provide 100% coverage, resulting in >90 dB RF shielding (>180 dB crosstalk) and excellent interference immunity (ingress and egress).
- **Phase Stability:** The intimately bonded structure and foam dielectric of LMR cables provide excellent phase stability over temperature and with bending. The high velocity dielectric results in superior phase stability as compared with solid and air-spaced dielectric cables.
- **Assemblies, Connectors, and Accessories:** Times Microwave provides ***FlexTech™*** jumper cable assemblies fabricated with LMR-600-DB watertight cable and a variety of connector interface combinations (ref: FlexTech pages). Custom assemblies with phase matching, insertion loss matching and other special electrical or marking requirements can also be provided. A full range of connectors, including 'EZ' install (non-solder) types, and installation hardware accessories is available for LMR-600 cable as shown on the next page.
- **LMR-LLPL LowLoss Plenum:** Refer to LMR In-Building Communications catalog on web site for details.

Part Description

Part Number	Designation	Jacket	Stock Code
LMR-600	Standard Outdoor Cable	Polyethylene	54003
LMR-600-DB	Watertight Cable	Polyethylene	54093
LMR-600-FR	CMR/MPR (PCC-FT4)	Non-Halogen	54032
LMR-600-UltraFlex	UltraFlex Cable	TPE	54044
LMR-600-LLPL	CMP/MPP (PCC-FT6)	Plenum	54061

TIMES MICROWAVE SYSTEMS

Mechanical Specifications

Minimum Bend Radius	1.5	38.1
Bending Moment	2.75 ft-lbs	3.73 N-m
Weight	0.131 lbs/ft	0.20 kG/m
Tensile Strength	350 lbs	158.9 kG
Flat Plate Crush	60 lb/in	1.07 kG/mm

Construction Specifications

Part Designation	Material	Inches	mm
Inner Conductor	Solid BCCAl	0.176	4.47
Dielectric	Foam Polyethylene	0.455	11.56
Outer Conductor	Aluminum Tape	0.461	11.71
Overall Braid	Tinned Copper	0.490	12.45
Standard Jacket	Black Polyethylene	0.590	14.99

Environmental Specifications

	°F	°C
Installation Temperature Range	-40/+185	(-40/+85)
Storage Temperature Range	-94/+185	(-70/+85)
Operating Temperature Range	-40/+185	(-40/+85)

Electrical Specifications

CutCutoff Frequency	10.3 GHz*	
Velocity of Propagation	87%	
Voltage Withstand	4000 VDC	
Peak Power	40 kW	
DC Resistance		
Inner Conductor, ohms	0.53/1000'	1.74/km
Outer Conductor, ohms	1.2/1000'	3.94/km
Jacket Spark	8000 VRMS	
Impedance	50 ohms	
Capacitance	23.4 pF/ft	76.8 pF/m
Inductance	0.058 uH/ft	0.19 uH/m
Shielding Effectiveness	>90 dB	
Phase Stability	< 10 ppm/C	

*Consult factory for applications over 6 GHz.

Frequency MHz	Attenuation dB/100 ft	Attenuation dB/100 m	Avg. Power kW
30 MHz	0.42	1.4	5.5
50 MHz	0.55	1.8	4.2
150 MHz	1.0	3.2	2.4
220 MHz	1.2	3.9	2.0
450 MHz	1.7	5.6	1.35
900 MHz	2.5	8.2	0.93
1500 MHz	3.3	10.9	0.70
1800 MHz	3.7	12.1	0.63
2000 MHz	3.9	12.8	0.59
2500 MHz	4.4	14.5	0.52
5800 MHz	7.3	23.8	0.32

Add 15% to tabulated attenuation for LMR-UltraFlex

Calculate Attenuation = $(0.07555) \cdot \sqrt{FMHz} + (0.00026) \cdot FMHz$

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

Made in China