

TIMES MICROWAVE SYSTEMS

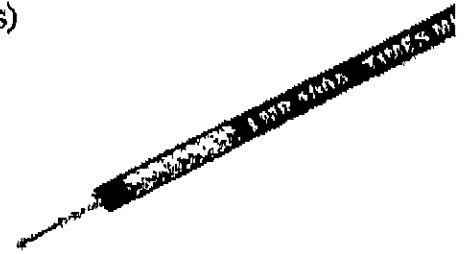
A Smiths Group plc company

LMR[®]-100A

Flexible Low Loss Communications Coax

Ideal for...

- Drop-in Replacement for RG-316/RG-174 (uses standard connectors)
- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, Mobile Antennas) requiring an easily routed, low loss RF cable



• **LMR[®]-PVC** is designed for low loss general-purpose indoor/outdoor applications and is somewhat more flexible than the standard polyethylene jacketed LMR.

• **LMR[®]-PVC-W** is a white-jacketed version of LMR-PVC for marine and other indoor/outdoor applications where color compatibility is desired.

• **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 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-100A cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors:** A wide variety of connectors are available for LMR-100A cable, 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-100A cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

Part Description		Stock
Part No.	Application	Code
LMR-100A-FR	Indoor-Riser CMR	FRPE Black 54037
LMR-100A-PVC	Indoor/Outdoor	PVC Black 54119
LMR-100A-PVC-W	Indoor/Outdoor	PVC White 54200

PVC = Poly Vinyl Chloride; MTO = Made to Order

Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BCCS	0.016	(0.46)
Dielectric	Solid PE	0.080	(1.52)
Outer Conductor	Aluminum Tape	0.065	(1.65)
Overall Braid	Tinned Copper	0.083	(2.11)
Jacket	(see table above)	0.110	(2.78)

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: Installation	In. (mm)	0.25	(6.4)
Bend Radius: repeated	In. (mm)	1	(25.4)
Bending Moment	In-lb (N-m)	0.1	(0.014)
Weight	Lb/ft (kg/m)	0.0692	(0.14)
Tensile Strength	Lb (kg)	15	(6.8)
Flat Plate Crush	Lb/in. (kg/mm)	10	(0.18)

Environmental Specifications		
Performance Property	F	C
Installation Temperature Range	-40/+185	-40/+85
Storage Temperature Range	-64/+185	-70/+85
Operating Temperature Range	-40/+185	-40/+85

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 (ohm/km)	81.0	(260)
Outer Conductor	ohms/1000ft (ohm/km)	0.5	(0.12)
Voltage Withstand	Volts DC		500
Jacket Spark	Volts RMS		2000
Peak Power	kW		0.6