

## FIELD TEST

### LMR Flexible Communications Coax

*Editor's Note: Each issue we review users' opinions of new and established equipment.*

**L**MR cables from Times Microwave Systems are designed for use as antenna feeders and equipment interconnects in communications systems. The cables range from 0.100 inch (LMR-100) to 1.670 inch (LMR-1700) in diameter. They consist of a low-density foam polyethylene dielectric with a foil/braid outer conductor and a black, UV-protected, polyethylene jacket. The center conductors are solid copper on the smaller sizes, copper-clad aluminum on the middle sizes, and copper tubes on the larger sizes.

This construction results in much better flexibility than corrugated copper cables of the same size, allowing for easier installation and frequently eliminating the need for jumper cables. The cables get their strength from their thick outer jackets, making them virtually immune to kinking, even when bent on a very tight radius.

The diameters of the smaller size LMR cables have been selected to be consistent with common RG cables and because they use high velocity dielectrics, the center conductor sizes are larger than for the standard RG cables. This allows the use of near-standard connectors which are relatively inexpensive and available from several vendors. The connectors for the LMR-500 and larger cables have been custom designed for the cables. These connectors are silver plated with gold plated



#### Specifications LMR Flexible Coax

<b>Dimensions:</b>	0.100" to 1.670" diameter
<b>Dielectric:</b>	Low dens. polyethylene
<b>Outer conductor:</b>	Braid & foil
<b>Jacket:</b>	Polyethylene

center pins for best intermodulation performance. All of the connectors are designed for easy field attachment, and special stripping tools are available to make connector attachment easier.

The outer conductor is a full coverage aluminum tape, with a tinned copper overbraid for connector attachment. This provides better than 90 dB RF shielding. The tape is bonded to the dielectric, sealing the cable to prevent moisture ingress.

#### THE OPINIONS

**George Corbin, engineering manager for Mobile Telesystems.**

"These cables are simply the most cost-effective, low loss cable available for the application that we use it in. We feel that it has the most consistent quality of any of the manufacturers cables that we have used, and it meets or exceeds all of our specifications.

"We manufacture satcom equipment, and we have been dealing with Times Microwave for several years. We have a good working relationship with the company and have been very pleased with all of the products that we have used from them. In the past, they have built cables

for us to meet specific needs, and they have met all of our expectations very well.

"We started using the product because when they came up with the LMR cable series, they contacted us. It seemed like this series of cables was

the answer to several long-standing problems that we had relating to the durability of some of our cables. We ordered some samples, ran tests on them and were satisfied.

"We have replaced a number of our standard cables with the LMR product. We use the LMR-240, LMR-500, and the LMR-600 in our products. Since we have started using this series, we have not had any major problems at all. Initially, we had a few minor problems, but they were very responsive to us and the problems were resolved almost immediately."

**Joe Reisert, president of Antennaco Inc.**

"We are very pleased with it. We were having difficulties with the cable from our last supplier. The impedance was not constant enough, and it had a tendency to draw in water. In addition, the cable was susceptible to crushing with very little force. We decided that we could not use a cable constructed like that as our customers would be adversely affected. In several cases, customers ordered our antenna products with this cable installed. After it was supplied, they were indeed dissat-

isfied with it, and we eventually had to switch to the LMR cable.

"The acceptance of the LMR cable has been very good with our customers in the six months since we introduced it. The insertion loss is very low and the impedance is constant."

For more information about LMR Flexible Communications Coax, contact Times Microwave Systems, 358 Hall Ave., Wallingford, CT 06497.

# The Kink Is Dead.

Working with corrugated cable can be a royal pain. It kinks. It's not flexible. It can cost you time and money.

LMR Coaxial Cable won't kink. So, your system installs much easier, and you'll save money. You'll get the optimum performance you expect, with comparable loss.

You'll find it in a size just right for your next installation. Call:

**1-800-TMS-COAX**

for a distributor near you.

**Long Live LMR.  
The No Kink Cable.**



**TIMES**  
MICROWAVE SYSTEMS  
P.O. Box 5039, Wallingford, CT 06492  
(203) 949-8400 • FAX: (203) 949-8423

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