

Low Loss Flexible LMR-600-FR Outdoor Rated Coax Cable Double Shielded with Black PE Jacket Fire Rated

RF Cables Technical Data Sheet



LMR-600-FR

Times Microwave Systems Coax Cable Specification

Configuration

- Low Loss, Outdoor Flexible Cable
- 2 Shield(s)

Features

- CMR Riser Rated Coax
- Non-Halogen, Low Smoke PE Jacket
- Max Operating Frequency of 5.8 GHz
- Phase Velocity 85% VoP
- Max Operating Temperature +85°C
- Min Install Bend Radius of 1.5 inches

Applications

- In-Building Riser Runs
- Short Antenna Installs
- RF Test Systems
- General Purpose RF Interconnect
- Laboratory Applications

Description

LMR-600-FR Fire Rated version of the 600 series Low Loss Coax from Times Microwave is part of the large product offering by Pasternack of radio frequency coaxial cable types specifically stocked to be ready for same-day shipment. Pasternack LMR-600-FR coax cable is manufactured in a flexible design and has a 50 Ohm impedance. This low loss and CMR riser rated 50 Ohm coax cable LMR-600-FR is constructed with a 0.590 inch diameter and Black PE jacket.

LMR-600-FR flexible 50 Ohm coax cable with PE jacket is rated for a 5.8 GHz maximum operating frequency. This 50 Ohm 0.590 inch diameter and low loss fire rated coax cable is built with an aluminum double shield count and RF shielding of 90 dB. Times Microwave LMR-600-FR PE coax is constructed with Foam PE dielectric and a maximum operating temperature of 85 degrees C. Pasternack's offering of LMR-600-FR coax cable provides specs for this wire on its RF coax cable LMR-600-FR datasheet.

LMR-600-FR cable is part of more than one million RF, microwave parts in stock at Pasternack. This Times Microwave low loss flexible LMR-600-FR coax cable is ready to buy and can be shipped worldwide. Pasternack also maintains a wide selection of other radio frequency coaxial cable types that ship same-day from our warehouse as with the rest of our other RF/microwave components.

* LMR™ is a trademark of Times Microwave Systems.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|-----------|---------|------------|
| Frequency Range | DC | | 5.8 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 85 | | % |
| Time Delay | | 1.17 3.84 | | ns/ft ns/m |
| Shielding Effectiveness | 90 | | | dB |
| Dielectric Withstanding Voltage (DC) | | | 4,000 | Vdc |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss Flexible LMR-600-FR Outdoor Rated Coax Cable Double Shielded with Black PE Jacket Fire Rated LMR-600-FR](#)

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| | | |
|-------------------------------|--------------|--------------|
| Jacket Spark | 8,000 | Vrms |
| Inner Conductor DC Resistance | 0.53 | Ohms/1000ft |
| Outer Conductor DC Resistance | 1.2 | Ohms/1000ft |
| Nominal Capacitance | 23.4 [76.77] | pF/ft [pF/m] |
| Nominal Inductance | 0.058 [0.19] | uH/ft [uH/m] |
| Input Power (Peak) | 40 | kWatts |

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|-------|-------|-----|----------|
| Frequency | 50 | 150 | 220 | 450 | 900 | MHz |
| Attenuation, Typ | 0.5 | 1 | 1.2 | 1.7 | 2.5 | dB/100ft |
| | 1.64 | 3.28 | 3.94 | 5.58 | 8.2 | dB/100m |
| Input Power (CW), Max | 4,240 | 2,410 | 1,970 | 1,350 | 930 | Watts |

| Description | F6 | F7 | F8 | F9 | F10 | Units |
|-----------------------|-------|-------|------|-------|-------|----------|
| Frequency | 1.5 | 1.8 | 2 | 2.5 | 5.8 | GHz |
| Attenuation, Typ | 3.3 | 3.7 | 3.9 | 4.4 | 7.3 | dB/100ft |
| | 10.83 | 12.14 | 12.8 | 14.44 | 23.95 | dB/100m |
| Input Power (CW), Max | 700 | 630 | 590 | 520 | 320 | Watts |

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.59 in [14.99 mm] |
| Weight | 0.131 lbs/ft [0.19 Kg/m] |
| Min. Bend Radius (Installation) | 1.5 in [38.1 mm] |
| Min. Bend Radius (Repeated) | 6 in [152.4 mm] |
| Bending Moment | 2.75 lbs-ft [3.73 N-m] |
| Tensile Strength | 350 lbs [158.76 kg] |
| Flat Plate Crush | 60 lbs/in [1.07 Kg/mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|----------------------|------------------|
| Inner Conductor | Copper, 1 Strand | 0.176 in 4.47 mm |

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| | | |
|----------------|---------------|---------------------|
| Conductor Type | Solid | |
| Dielectric | Foam PE | 0.455 in [11.56 mm] |
| First Shield | Aluminum Tape | |
| Second Shield | Tinned Copper | |
| Jacket | PE, Black | 0.59 in [14.99 mm] |

Environmental Specifications

Temperature

| | |
|--------------------|------------------|
| Operating Range | -40 to +85 deg C |
| Installation Range | -40 to +85 deg C |
| Storage Range | -70 to +85 deg C |

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Low Loss Flexible LMR-600-FR Outdoor Rated Coax Cable Double Shielded with Black PE Jacket Fire Rated from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

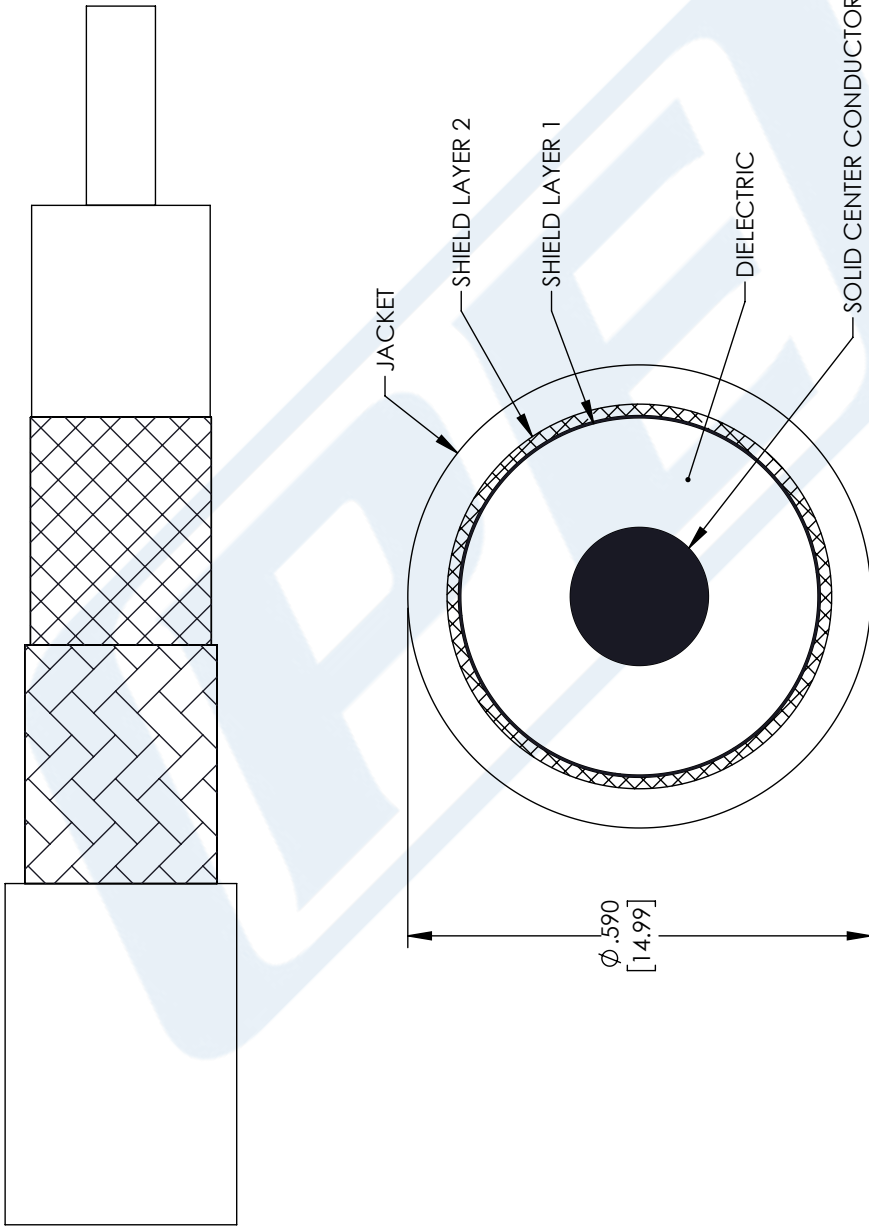
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss Flexible LMR-600-FR Outdoor Rated Coax Cable Double Shielded with Black PE Jacket Fire Rated LMR-600-FR](#)

URL: <https://www.pasternack.com/50-ohm-low-loss-flexible-lmr195-pe-jacket-double-shielded-black-lmr-195-p.aspx>

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TIMES MICROWAVE SYSTEMS **LMR-600-FR CAD Drawing**
 Low Loss Flexible LMR-600-FR Outdoor Rated Coax Cable
 Double Shielded with Black PE Jacket Fire Rated

| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 06-04-2021 | SELLIS |



| | | |
|--|---|---|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <p>.X = ±.2 [.51] FRACTIONS ± 1/32 .XX = ±.02 [.51] ANGLES ± 1° .XXX = ±.005 [.13]</p> <p>CABLE LENGTH (L), TOLERANCES: L ≤ 12 [305] = +1 [25] / -0 12 [305] < L ≤ 60 [1524] = +2 [51] / -0 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0 300 [7620] < L = +5% / -0</p> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> | <p>PE PASTERNAK an INFINITI brand</p> <p>Pasternack Enterprises, Inc. P. O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com</p> | <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> |
| | <p>SIZE A CAGE CODE 53919 DRAWN BY MVEERAPPAN ITEM NO. LMR-600-FR</p> | <p>REV A</p> |

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