

Times Microwave LMR-100A-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated

Times Microwave Systems Coax Cable Specification

LMR-100-FR Fire Rated version of the 100 series Low Loss Coax from Times Microwave is part of the large product offering by Fairview Microwave of radio frequency coaxial cable types specifically stocked to be ready for same-day shipment. Fairview Microwave LMR-100-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-100-FR is constructed with a 0.110 inch diameter and Black FRPE jacket.

LMR-100-FR flexible 50 Ohm coax cable with FRPE jacket is rated for a 5.8 GHz maximum operating frequency. This 50 Ohm 0.110 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-100-FR FRPE coax is constructed with PE dielectric and a maximum operating temperature of 85 degrees C. Fairview Microwave's offering of LMR-100-FR coax cable provides specs for this wire on its RF coax cable LMR-100-FR datasheet.

LMR-100-FR cable is part of more than one million RF, microwave parts in stock at Fairview Microwave. This Times Microwave low loss flexible LMR-100-FR coax cable is ready to buy and can be shipped worldwide. Fairview Microwave 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 | Min | Typ | Max | Units |
|----------------------------|-----|-------------|-------|--------------|
| Frequency Range | DC | | 6 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 66 | | % |
| Time Delay | | 1.54 [5.05] | | ns/ft [ns/m] |
| Shielding Effectiveness | 90 | | | dB |
| DWV (DC) | | | 500 | Vdc |
| Jacket Spark | | | 2,000 | Vrms |
| Inner Conductor DC Resist. | | | 81 | Ohms/1000ft |
| Outer Conductor DC Resist. | | | 9.5 | Ohms/1000ft |
| Nominal Capacitance | | 30.8 | | pF/ft |
| | | [101.05] | | [pF/m] |
| Nominal Inductance | | 0.077 | | uH/ft |
| | | [0.25] | | [uH/m] |
| Input Power (Peak) | | | 600 | Watts |

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|------------------|-------|------|-------|-------|------|----------|
| Frequency | 50 | 150 | 220 | 450 | 900 | MHz |
| Attenuation, Typ | 5.1 | 8.9 | 10.9 | 15.8 | 22.8 | dB/100ft |
| | 16.73 | 29.2 | 35.76 | 51.84 | 74.8 | dB/100m |



Configuration:

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

Features:

- Max Operating Frequency of 5.8 GHz
- Phase Velocity 66% VoP
- Low Smoke, Zero Halogen FRPE Jacket
- CMR Riser Rated Coax
- Max Operating Temperature +85°C
- Min Install Bend Radius of 0.25 inches

Applications:

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

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| | | | | | | |
|--------------------|-----|-----|----|----|----|-------|
| Power In (CW), Max | 180 | 100 | 83 | 57 | 39 | Watts |
|--------------------|-----|-----|----|----|----|-------|

| Description | F6 | F7 | F8 | F9 | F10 | Units |
|--------------------|-------|--------|--------|--------|-------|----------|
| Frequency | 1.5 | 1.8 | 2 | 2.5 | 6 | GHz |
| Attenuation, Typ | 30.1 | 33.2 | 35.2 | 39.8 | 64.1 | dB/100ft |
| | 98.75 | 108.92 | 115.49 | 130.58 | 210.3 | dB/100m |
| Power In (CW), Max | 29 | 27 | 25 | 22 | 13 | Watts |

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.11 in [2.79 mm] |
| Weight | 0.009 lbs/ft [0.01 kg/m] |
| Min. Bend Radius (Installation) | 0.25 in [6.35 mm] |
| Min. Bend Radius (Repeated) | 1 in [25.4 mm] |
| Bending Moment | 0.1 lbs-ft [0.14 N-m] |
| Tensile Strength | 15 lbs [6.8 kg] |
| Flat Plate Crush | 10 lbs/in [0.18 kg/mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|----------------------|--------------------|
| Inner Conductor | Copper, 1 Strands | 0.018 in [0.46 mm] |
| Conductor Type | Solid | |
| Dielectric | PE | 0.06 in [1.52 mm] |
| First Shield | Aluminum Tape | 0.068 in [1.73 mm] |
| Second Shield | Tinned Copper | 0.083 in [2.11 mm] |
| Jacket | FRPE, Black | 0.11 in [2.79 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

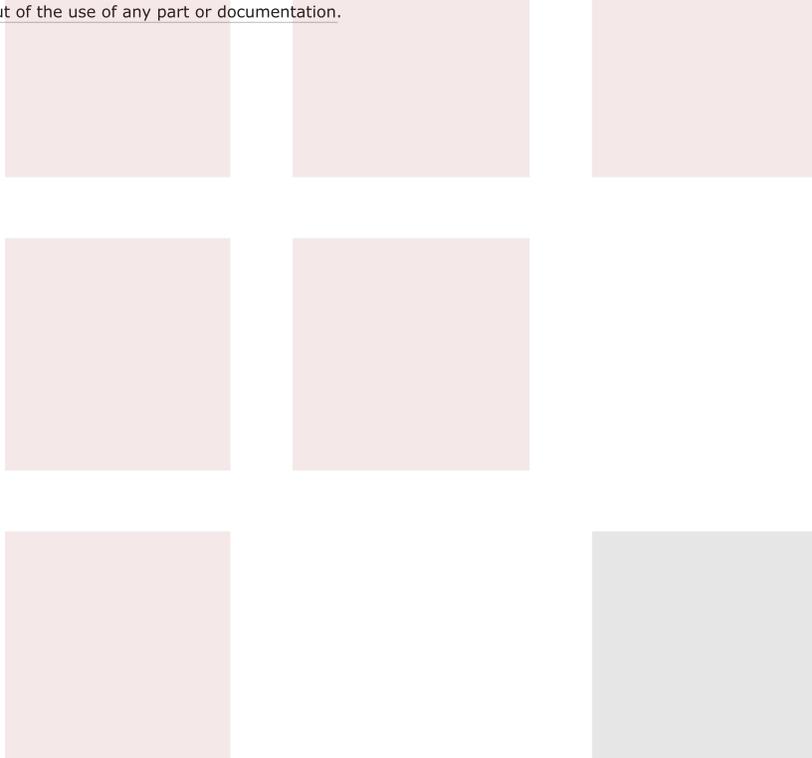
Notes:

Times Microwave LMR-100A-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated from Fairview Microwave has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

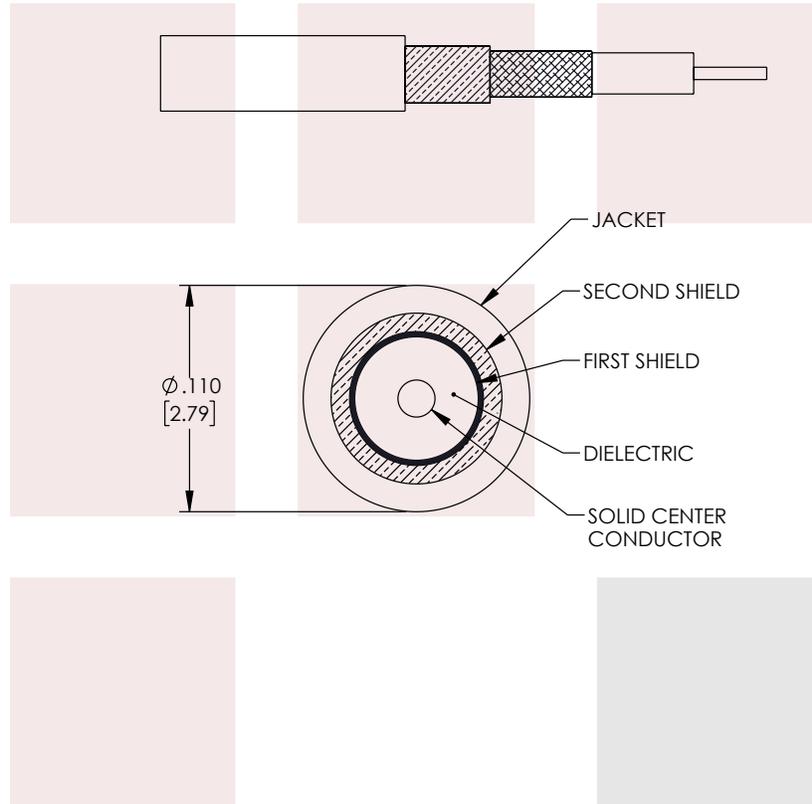
Click the following link to obtain additional part information: [Times Microwave LMR-100A-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated LMR-100A-FR-BULK](#)

URL: <https://www.fairviewmicrowave.com/lmr100fr-low-loss-flexible-coax-cable-frpe-jacket-lmr-100a-fr-bulk-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



| REVISIONS | | | |
|-----------|-----------------|------------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 02/13/2023 | AGANWANI |



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|---|--|--|--|-------|--|
| <p>Fairview Microwave an INFINIT[®] brand</p> | <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> | | <p>THIRD-ANGLE PROJECTION</p> | | |
| | <p>TOLERANCES:</p> <p>.X = ±.2 [5.08] FRACTIONS ± 1/32 .XX = ±.02 [.51] ANGLES ± 1° .XXX = ±.005 [.13]</p> | | <p>CABLE LENGTH (L) TOLERANCES:</p> <p>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%L / -0</p> | | <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF FAIRVIEW MICROWAVE CORPORATION. ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> |
| <p>TITLE</p> <p>Times Microwave LMR-100A-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated</p> | | <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> <p>SCALE N/A</p> | | | |
| SIZE A | CAGE CODE 3FKR5 | DRAWN BY AKRESOWSKI | ITEM NO. LMR-100A-FR-BULK | REV A | |

T-Rev.D