

## Times Microwave LMR-240-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated



## LMR-240-FR-BULK



## **Times Microwave Systems Connector Specification**

#### Configuration

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

#### **Features**

- · Max Operating Frequency of 8 GHz
- · Phase Velocity 83% VoP
- · Low Smoke, Zero Halogen FRPE Jacket

#### **Applications**

- RF Test Systems
- · In-Building Riser Runs
- · Laboratory Applications

- · CMR Riser Rated Coax
- Max Operating Temperature +85°C
- · Min Install Bend Radius of 0.75 inches
- Antenna Installs
- General Purpose RF Interconnect

#### **Description**

LMR-240-FR Fire Rated version of the 240 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-240-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-240-FR is constructed with a 0.240 inch diameter and Black FRPE jacket.

LMR-240-FR flexible 50 Ohm coax cable with FRPE jacket is rated for a 8 GHz maximum operating frequency. This 50 Ohm 0.240 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-240-FR FRPE coax is constructed with Foam PE dielectric and a maximum operating temperature of 85 degrees C. Fairview Microwave's offering of LMR-240-FR coax cable provides specs for this wire on its RF coax cable LMR-240-FR datasheet.

LMR-240-FR cable is part of more than one million RF, microwave parts in stock at Fairview Microwave. This Times Microwave low loss flexible LMR-240-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.

#### **Electrical Specifications**

| Description                          | Minimum | Typical     | Maximum | Units        |
|--------------------------------------|---------|-------------|---------|--------------|
| Frequency Range                      | DC      |             | 8       | GHz          |
| Impedance                            |         | 50          |         | Ohms         |
| Velocity of Propagation              |         | 83          |         | %            |
| Time Delay                           |         | 1.21 [3.97] |         | ns/ft [ns/m] |
| Shielding Effectiveness              | 90      |             |         | dB           |
| Dielectric Withstanding Voltage (DC) |         |             | 1,500   | Vdc          |
| Jacket Spark                         |         |             | 5,000   | Vrms         |
| Inner Conductor DC Resistance        |         |             | 3.2     | Ohms/1000ft  |

<sup>\*</sup> LMR™ is a trademark of Times Microwave Systems.



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### **Electrical Specifications**

| Description                   | Minimum | Typical     | Maximum | Units        |
|-------------------------------|---------|-------------|---------|--------------|
| Outer Conductor DC Resistance |         |             | 3.89    | Ohms/1000ft  |
| Nominal Capacitance           |         | 24.2 [79.4] |         | pF/ft [pF/m] |
| Nominal Inductance            |         | 0.06 [0.2]  |         | uH/ft [uH/m] |
| Input Power (Peak)            |         |             | 5.6     | kWatts       |

## **Performance by Frequency Band**

| Description           | F1    | F2   | F3    | F4    | F5    | Units    |
|-----------------------|-------|------|-------|-------|-------|----------|
| Frequency             | 50    | 150  | 220   | 450   | 900   | MHz      |
| Attenuation, Typ      | 1.7   | 3    | 3.7   | 5.3   | 7.6   | dB/100ft |
|                       | 5.58  | 9.84 | 12.14 | 17.39 | 24.93 | dB/100m  |
| Input Power (CW), Max | 1,150 | 660  | 540   | 380   | 260   | Watts    |

| Description           | F6    | F7    | F8    | F9    | F10   | Units    |
|-----------------------|-------|-------|-------|-------|-------|----------|
| Frequency             | 1.5   | 1.8   | 2     | 2.5   | 6     | GHz      |
| Attenuation, Typ      | 9.9   | 10.9  | 11.5  | 12.9  | 20.4  | dB/100ft |
|                       | 32.48 | 35.76 | 37.73 | 42.32 | 66.93 | dB/100m  |
| Input Power (CW), Max | 200   | 180   | 170   | 150   | 100   | Watts    |

### **Mechanical Specifications**

Diameter Weight

Min. Bend Radius (Installation)

Min. Bend Radius (Repeated)

Bending Moment Tensile Strength Flat Plate Crush 0.24 in [6.1 mm] 0.039 lbs/ft [0.06 kg/m] 0.75 in [19.05 mm] 2.5 in [63.5 mm] 0.25 lbs-ft [0.34 N-m] 80 lbs [36.29 kg] 20 lbs/in [0.36 kg/mm]

#### **Construction Specifications**

| Description     | Material and Plating | Diameter           |
|-----------------|----------------------|--------------------|
| Inner Conductor | Copper, 1 Strand     | 0.056 in [1.42 mm] |
| Conductor Type  | Solid                |                    |
| Dielectric      | Foam PE              | 0.15 in [3.81 mm]  |
| First Shield    | Aluminum Tape        |                    |
| Second Shield   | Tinned Copper        |                    |
| Jacket          | FRPE, Black          | 0.24 in [6.1 mm]   |



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#### **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-240-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: Times Microwave LMR-240-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated LMR-240-FR-BULK

URL: https://www.fairviewmicrowave.com/lmr-240-fr-low-loss-flexible-coax-cable-frpe-jacket-lmr-240-fr-bulk-p.aspx

The information contained within 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 impliment 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 liability arising out of the use of any part or document.

## LMR-240-FR-BULK CAD Drawing

Times Microwave LMR-240-FR Low Loss Flexible Coax Cable Black FRPE Jacket Fire Rated

