



Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE Jacket Fire Rated

RF Cables Technical Data Sheet

LMR-100A-FR-FT

Times Microwave Systems Coax Cable Specification Configuration

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

Features

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

Applications

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

Description

LMR-100-FR Fire Rated version of the 100 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-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. Pasternack'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 Pasternack. This Times Microwave low loss flexible LMR-100-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		66		%
Time Delay		1.54 [5.05]		ns/ft [ns/m]
Shielding Effectiveness	90			dB
Dielectric Withstanding Voltage (DC)			500	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-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE Jacket Fire Rated LMR-100A-FR-FT](#)



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Jacket Spark	2,000	Vrms
Inner Conductor DC Resistance	81	Ohms/1000ft
Outer Conductor DC Resistance	9.5	Ohms/1000ft
Nominal Capacitance	30.8 [101.05]	pF/ft [pF/m]
Nominal Inductance	0.077 [0.25]	uH/ft [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
Input Power (CW), Max	180	100	83	57	39	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	1.5	1.8	2	2.5	5.8	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
Input Power (CW), Max	29	27	25	22	13	Watts

Mechanical Specifications

Diameter	0.11 in [2.79 mm]
Weight	0.0092 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 Strand	0.018 in [0.46 mm]

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Conductor Type	Solid	
Dielectric	PE	0.06 in [1.52 mm]
First Shield	Aluminum Tape	[]
Second Shield	Tinned Copper	[]
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:

Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE 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.

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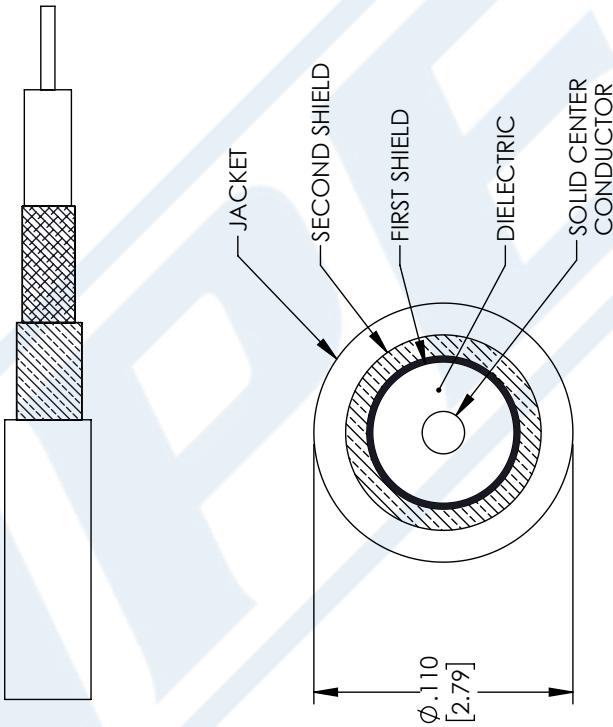
URL: <https://www.pasternack.com/low-loss-flexible-lmr100fr-frpe-jacket-aluminum-tape-over-tinned-copper-outer-conductor-double-shielded-lmr-100a-fr-ft-p.aspx>

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. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

LMR-100A-FR-FT CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03/01/2022	AGANWANI



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

X = ± .2	[.008]	FRACTIONS
.XX = ± .02	[.51]	± 1/32
.XXX = ± .005	[.13]	ANGLES ± 1°

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

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITI® brand

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

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SHEET 1 OF 1

SCALE N/A

SIZE A

CAGE CODE 53919

DRAWN BY DZINN

ITEM NO. LMR-100A-FR-FT

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