



# SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

## RF Connectors Technical Data Sheet

PE4009

### Configuration

- SMA Male Connector
- MIL-STD-348A
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch
- 5/16 inch Hex

### Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.4:1
- Gold Plated Brass Contact
- 50 µin minimum contact plating

### Applications

- General Purpose Test
- Custom Cable Assemblies

### Description

Pasternack's PE4009 SMA male right angle connector with crimp/solder attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100 and .100 inch is part of our full line of RF components available for same-day shipping. Our SMA male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.4:1. Its right angle body geometry allows for easier connections in tight spaces.

Our SMA male right angle connector PE4009 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

### Electrical Specifications

| Description            | Minimum | Typical | Maximum | Units |
|------------------------|---------|---------|---------|-------|
| Frequency Range        | DC      |         | 6       | GHz   |
| VSWR                   |         |         | 1.4:1   |       |
| Operating Voltage (AC) |         |         | 335     | Vrms  |

### Mechanical Specifications

| Size          |                                 |
|---------------|---------------------------------|
| Length        | 0.61 in [15.49 mm]              |
| Width/Dia.    | 0.315 in [8.00 mm]              |
| Height        | 0.591 in [15.01 mm]             |
| Weight        | 0.016 lbs [7.26 g]              |
| Mating Torque | 3 to 5 in-lbs [0.34 to 0.57 Nm] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch PE4009](#)



SMA Male Right Angle Connector Crimp/Solder Attachment for  
RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

RF Connectors  
Technical Data Sheet

PE4009

**Material Specifications**

| Description  | Material | Plating                   |
|--------------|----------|---------------------------|
| Contact      | Brass    | Gold<br>50 µin minimum    |
| Insulation   | PTFE     |                           |
| Body         | Brass    | Nickel<br>100 µin minimum |
| Coupling Nut | Brass    | Nickel<br>100 µin minimum |
| Crimp Sleeve | Brass    | Nickel                    |

**Environmental Specifications**

**Temperature**

Operating Range -65 to +165 deg C

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

**Plotted and Other Data**

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch PE4009](#)

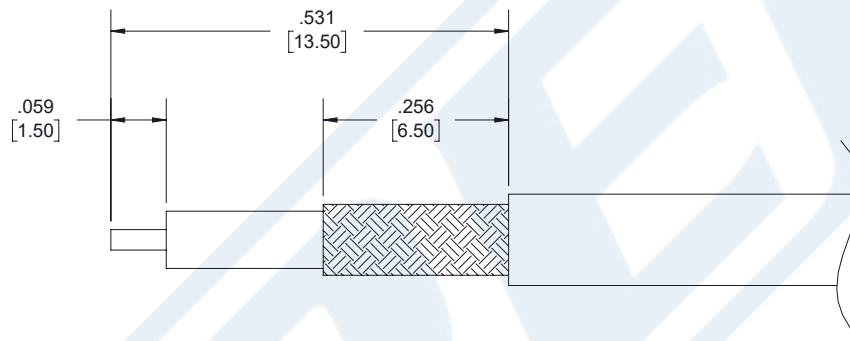


SMA Male Right Angle Connector Crimp/Solder Attachment for  
RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

RF Connectors  
Technical Data Sheet

PE4009

**Assembly Instruction**



**ASSEMBLY PROCEDURES**

1. STRIP CABLE TO THE DIMENSIONS SHOWN, DO NOT NICK CENTER CONDUCTOR OR BRAID. SLIDE FERRULE OVER CABLE.
2. INSTALL CABLE INTO BODY OF CONNECTOR AND SOFT SOLDER CENTER CONDUCTOR IN PLACE.
3. CRIMP FERRULE AND PRESS CAP DOWN.

**CRIMP SIZE REQUIRED**

- FERRULE: .134 [3.40] HEX CRIMP TOOL.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch PE4009](#)



## SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch

### RF Connectors Technical Data Sheet

PE4009

SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch 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: [SMA Male Right Angle Connector Crimp/Solder Attachment for RG174, RG316, RG188, LMR-100, PE-B100, PE-C100, .100 inch PE4009](https://www.pasternack.com/sma-male-right-angle-connector-crimp-solder-attachment-for-rg174-rg316-rg188-lmr-100-pe-b100-pe-c100-.100-inch-pe4009)

URL: <https://www.pasternack.com/sma-male-rg174-rg316-lmr-100-pe-b100-pe-c100-connector-pe4009-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.





TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188

RF Connectors  
Technical Data Sheet

PE4454

**Configuration**

- TNC Male Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: RG174, RG316, RG188

**Applications**

- General Purpose Test
- Custom Cable Assemblies

**Description**

Pasternack's PE4454 TNC male right angle connector with clamp/solder attachment for RG174, RG316 and RG188 is part of our full line of RF components available for same-day shipping. Its right angle body geometry allows for easier connections in tight spaces.

Our TNC male right angle connector PE4454 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

**Mechanical Specifications**

Weight 0.096 lbs [43.54 g]

**Material Specifications**

| Description | Material | Plating |
|-------------|----------|---------|
| Body        | Brass    | Nickel  |

**Environmental Specifications**

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

**Plotted and Other Data**

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188 PE4454](#)

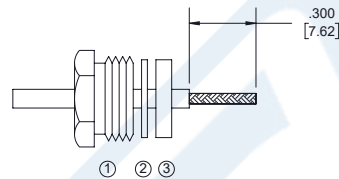


TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188

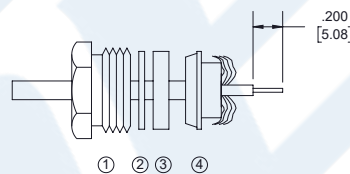
RF Connectors  
Technical Data Sheet

PE4454

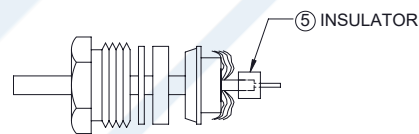
Assembly Instruction



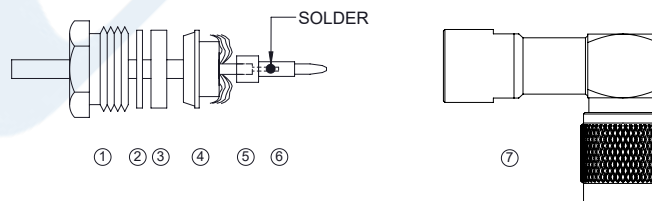
1. SLIDE CLAMP NUT ①, WASHER ② & GASKET ③ OVER CABLE. STRIP CABLE AS SHOWN. DO NOT NICK BRAID WHILE CUTTING JACKET. TAPER END OF BRAID TO PERMIT ASSEMBLY OF CLAMP.



2. SLIDE BRAID CLAMP ④ OVER BRAID & SEAT AGAINST CABLE. FORM BRAID OVER CLAMP NUT. TRIM BRAID BACK TO SHOULDER. CUT DIELECTRIC & CENTER CONDUCTOR TO DIMENSION SHOWN. DO NOT NICK CENTER CONDUCTOR.



3. SLIDE INSULATOR ⑤ AGAINST THE BRAID CLAMP. SOFT SOLDER CONTACT ⑥ TO CENTER CONDUCTOR. REMOVE EXCESS SOLDER. DO NOT OVER HEAT DIELECTRIC. INSERT CABLE ASSEMBLY INTO BODY ⑦ & TIGHTEN BY CLAMP NUT ONLY.



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188 PE4454](#)



## TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188

### RF Connectors Technical Data Sheet

PE4454

TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188 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: [TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188 PE4454](https://www.pasternack.com/tnc-male-standard-rg174-rg316-rg188-connector-pe4454-p.aspx)

URL: <https://www.pasternack.com/tnc-male-standard-rg174-rg316-rg188-connector-pe4454-p.aspx>

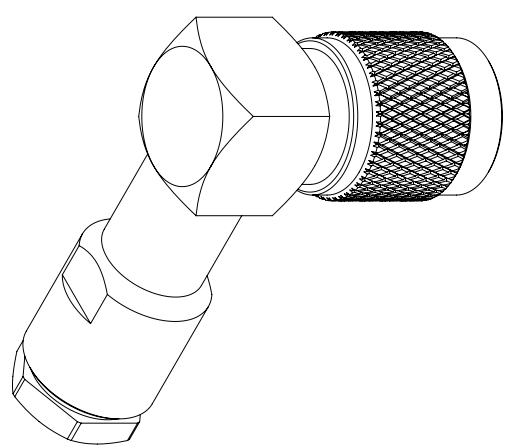
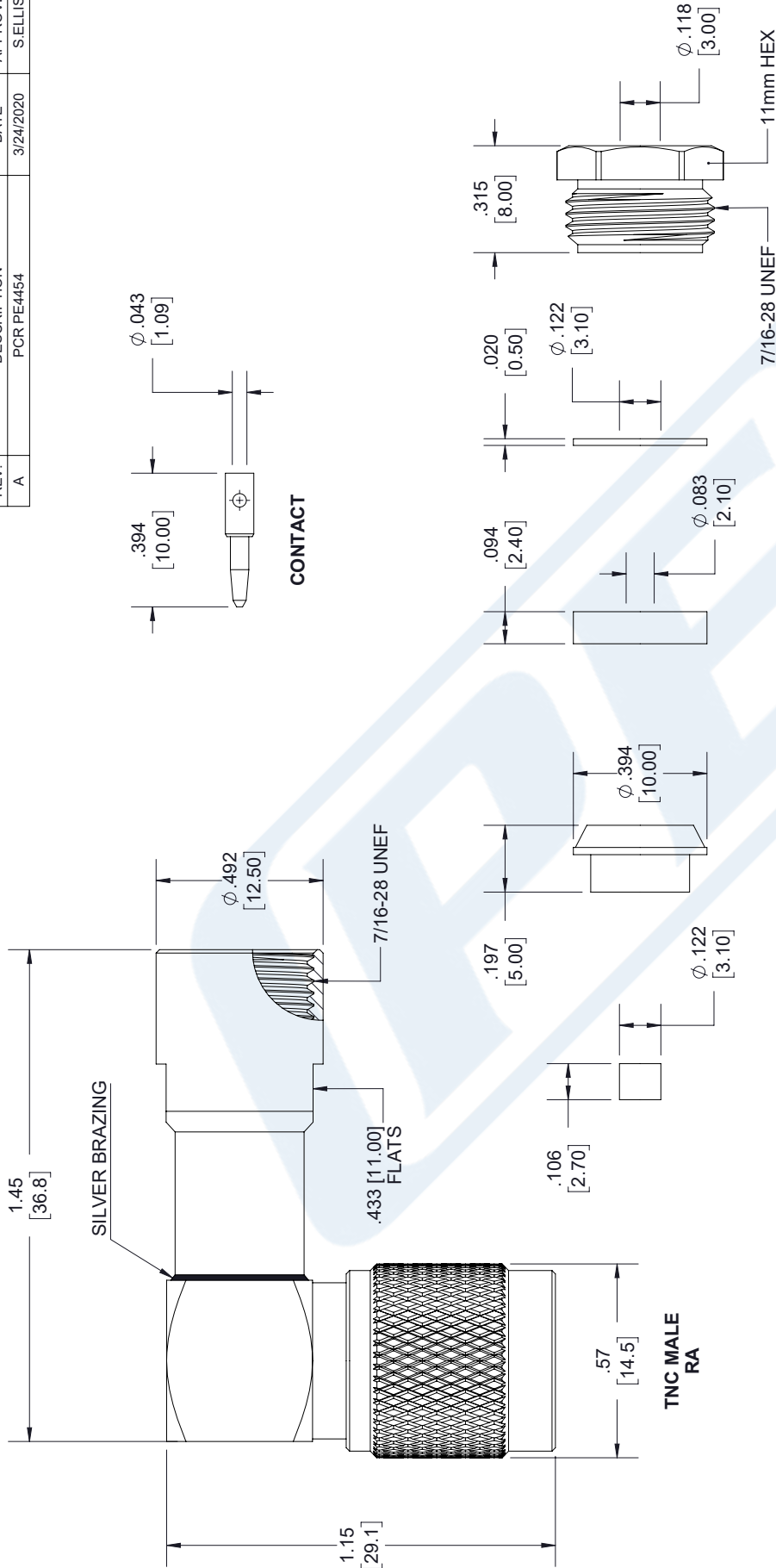
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

# PE4454 CAD Drawing

TNC Male Right Angle Connector Clamp/Solder Attachment For RG174, RG316, RG188

| REV. | DESCRIPTION | DATE      | APPROVED |
|------|-------------|-----------|----------|
| A    | PCR PE4454  | 3/24/2020 | S.ELLIS  |

| REV. | DESCRIPTION | DATE      | APPROVED |
|------|-------------|-----------|----------|
| A    | PCR PE4454  | 3/24/2020 | S.ELLIS  |



**PE PASTERNAK**  
an INFINITO 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

THIRD-ANGLE PROJECTION

THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.

SHEET 1 OF 2  
SCALE N/A

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

TOLERANCES:  
 .X = ±.2 [5.08] FRACTIONS ± 1/32  
 .XX = ±.02 [.51] ANGLES ± 1°  
 .XXX = ±.005 [.13] 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% / L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SIZE CAGE CODE DRAWN BY ITEM NO. REV

A 53919 K.DANG PE4454 A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.



## 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

### 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](#)



## 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

|                               |               |              |
|-------------------------------|---------------|--------------|
| 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] |

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](#)



## 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

|                |               |                   |
|----------------|---------------|-------------------|
| 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.

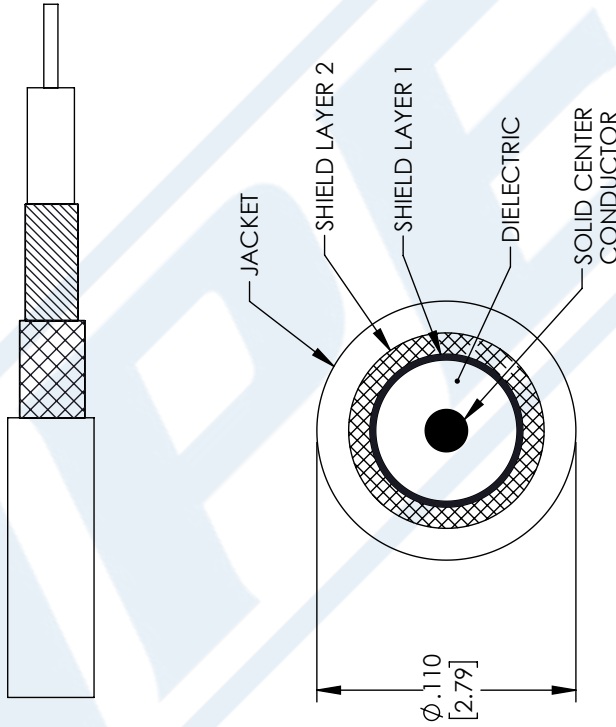
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable Double Shielded with Black FRPE Jacket Fire Rated LMR-100A-FR](#)

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

**TIMES** MICROWAVE SYSTEMS **LMR-100A-FR CAD Drawing**  
 Low Loss Flexible LMR-100-FR Outdoor Rated Coax Cable  
 Double Shielded with Black FRPE Jacket Fire Rated

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



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

**TOLERANCES:**  
 .X = ±.2 [ .508]    FRACTIONS ± 1/32  
 .XX = ±.02 [ .51]    ANGLES ± 1°  
 .XXX = ±.005 [ .13]

**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

SIZE: A    CAGE CODE: 53919    DRAWN BY: MVEERAPPAN    ITEM NO.: LMR-100A-FR

THIRD-ANGLE PROJECTION

THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE: N/A

REV: A