

## Fire Rated BNC Male to SMA Male Low Loss Cable Using LMR-100-FR Coax



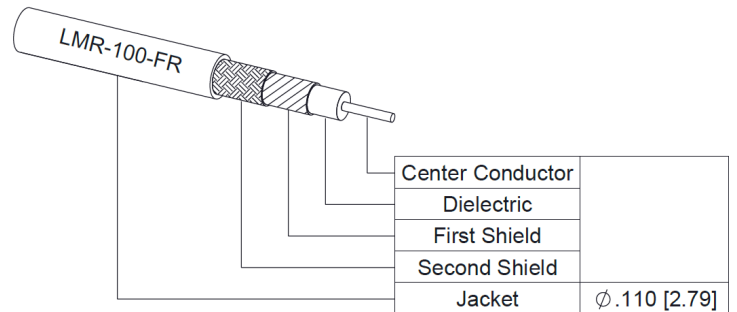
### PE3W14616

#### Configuration

- Connector 1: BNC Male
- Connector 2: SMA Male
- Cable Type: LMR-100A-FR
- Coax Flex Type: Flexible

#### Features

- Max Frequency 3 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- FRPE Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W14616 BNC male to SMA male cable using LMR-100-FR coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack BNC to SMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-100A-FR coax. The PE3W14616 BNC male to SMA male cable assembly operates to 3 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ohms/1000ft [Ohms/Km]

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**PE3W14616**

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Jacket Spark			2,000	Vrms

**Specifications by Frequency**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3W14616	Custom Lengths Available	Insertion Loss (Typ.)	0.07	0.115	0.165	0.24	0.432	dB/ft	
			0.23	0.38	0.55	0.79	1.42	dB/m	
PE3W14616-24	24 In	Insertion Loss (Typ.)	0.34	0.43	0.53	0.68	1.07	dB	0.078
PE3W14616-36	36 In	Insertion Loss (Typ.)	0.41	0.55	0.7	0.92	1.5	dB	0.087
PE3W14616-48	48 In	Insertion Loss (Typ.)	0.48	0.66	0.86	1.16	1.93	dB	0.096
PE3W14616-100CM	100 CM	Insertion Loss (Typ.)	0.43	0.58	0.75	0.99	1.62	dB	0.09
PE3W14616-200CM	200 CM	Insertion Loss (Typ.)	0.66	0.96	1.29	1.78	3.04	dB	0.12

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

Loss due to Connector 1:	0.1 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.069 pounds
Additional Weight per Inch:	0.00075 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter	0.5 in [12.7 mm]
Weight	0.069 lbs [31.3 g]

**Cable**

Cable Type	LMR-100A-FR
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper
Jacket Material	FRPE, Black
Jacket Diameter	0.11 in [2.79 mm]
One Time Minimum Bend Radius	0.25 in [6.35 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

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**Connectors**

Description	Connector 1	Connector 2
Type	BNC Male	SMA Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles	500	
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	100 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs 0.34 Nm

**Environmental Specifications**

Operating Range Temperature -40 to +85 deg C

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

**Plotted and Other Data**

Notes:

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**PE3W14616**

**Typical Performance Data**

**How to Order**

Part Number Configuration:

**PE3W14616**

**- xx**

**uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches  
Length  
Base Number

Example: PE3W14616-12 = 12 inches long cable  
PE3W14616-100cm = 100 cm long cable

Fire Rated BNC Male to SMA Male Low Loss Cable Using LMR-100-FR Coax 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.

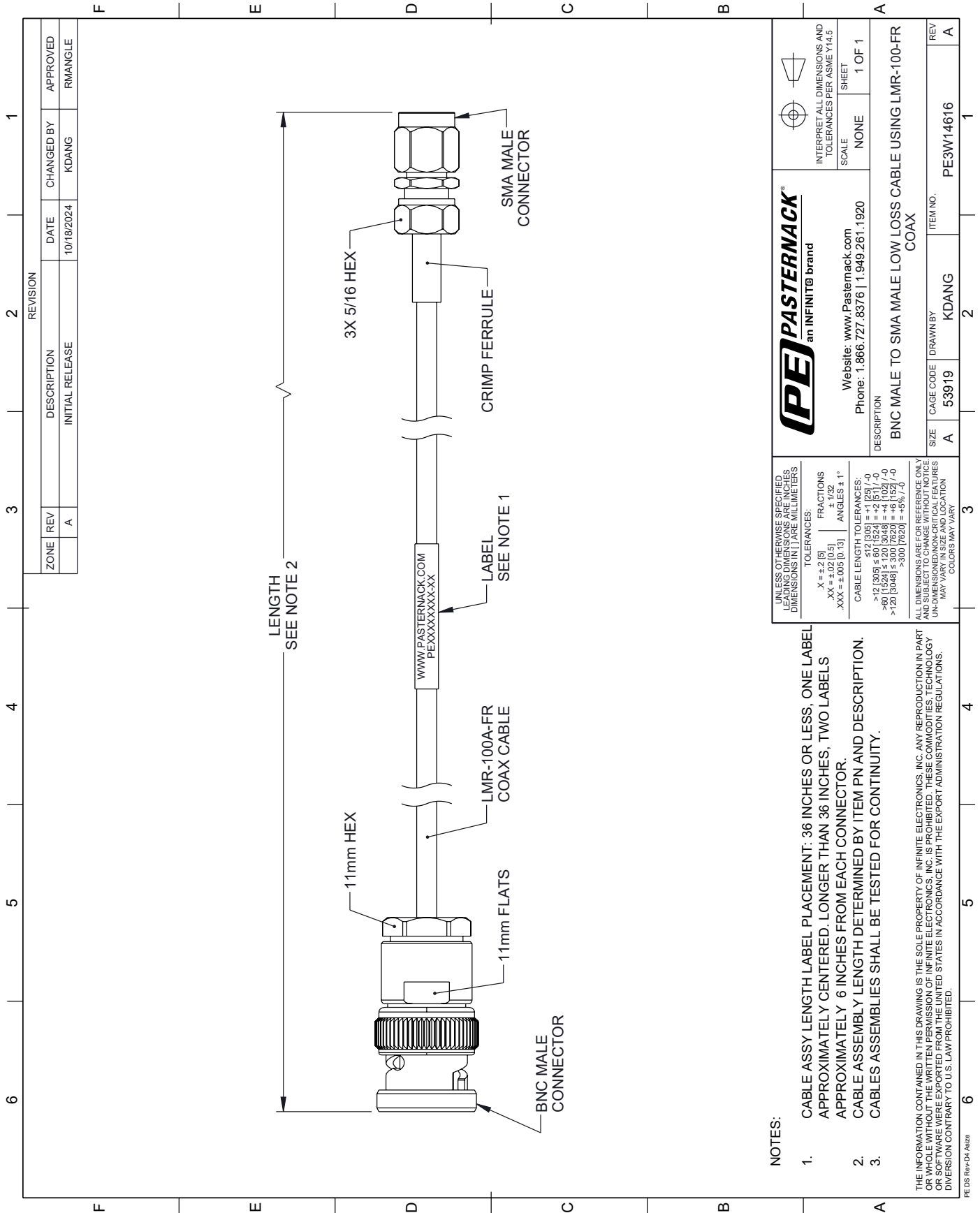
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated BNC Male to SMA Male Low Loss Cable Using LMR-100-FR Coax PE3W14616](#)

URL: <https://www.pasternack.com/fire-rated-bnc-male-to-sma-male-low-loss-cable-using-lmr-100-fr-pe3w14616-p.aspx>

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# PE3W14616 CAD Drawing

Fire Rated BNC Male to SMA Male Low Loss Cable Using LMR-100-FR Coax



<b>PASTERNAK</b> an INFINITT® brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> Phone: 1.866.727.8376   1.949.261.1920		DESCRIPTION: <b>BNC MALE TO SMA MALE LOW LOSS CABLE USING LMR-100-FR COAX</b>
SIZE: A	CAGE CODE: 53919	DRAWN BY: KDANG
ITEM NO.: PE3W14616		REV: A

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN PAREMILLIMETERS

TOLERANCES:  
 X = ±.2 [5] FRACTIONS  
 .XX = ±.02 [0.5] ± 1/32  
 .XXX = ±.005 [0.13] ANGLES ± 1°

CABLE LENGTH TOLERANCES:  
 >12 [305] ≤ 60 [1524] = +1 [25] / -0  
 >60 [1524] ≤ 120 [3048] = +4 [102] / -0  
 >120 [3048] ≤ 300 [7620] = +5 [127] / -0  
 >300 [7620] = +5 [127] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF PARTS MAY VARY FROM DRAWING DIMENSIONS. UNDIMENSIONED CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

- NOTES:
- CABLE ASSY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
  - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
  - CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
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