



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

### RF Cable Assemblies Technical Data Sheet

**PE3W13641**

#### Configuration

- Connector 1: BNC Male
- Connector 2: BNC Male
- Cable Type: LMR-100A-FR

#### Features

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

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W13641 BNC male to BNC 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 BNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-100A-FR coax. The PE3W13641 BNC male to BNC 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.

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 BNC Male Low Loss Cable Using LMR-100-FR Coax PE3W13641](#)



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

**RF Cable Assemblies Technical Data Sheet**

**PE3W13641**

**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]		$\Omega$ /1000ft [ $\Omega$ /Km]
DC Resistance Outer Conductor		9.5 [31.17]		$\Omega$ /1000ft [ $\Omega$ /Km]
Jacket Spark			2,000	Vrms

**Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.07	0.11	0.16	0.24	0.434	dB/ft
	0.23	0.36	0.52	0.79	1.42	dB/m

**Electrical Specification Notes:**

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the straight connector.

**Mechanical Specifications**

**Cable Assembly**

Weight 0.064 lbs [29.03 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]

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 BNC Male Low Loss Cable Using LMR-100-FR Coax PE3W13641](#)



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

**RF Cable Assemblies Technical Data Sheet**

**PE3W13641**

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]

**Connectors**

Description	Connector 1	Connector 2
Type	BNC Male	BNC Male
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	50 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	100 µin minimum

**Environmental Specifications**

**Temperature**

Operating Range -40 to +85 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: [Fire Rated BNC Male to BNC Male Low Loss Cable Using LMR-100-FR Coax PE3W13641](#)



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

**RF Cable Assemblies Technical Data Sheet**

**PE3W13641**

**How to Order**

Part Number Configuration:

**PE3W13641**

- **xx**

**uu**

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

Example: PE3W13641-12 = 12 inches long cable  
PE3W13641-100cm = 100 cm long cable

Fire Rated BNC Male to BNC 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.

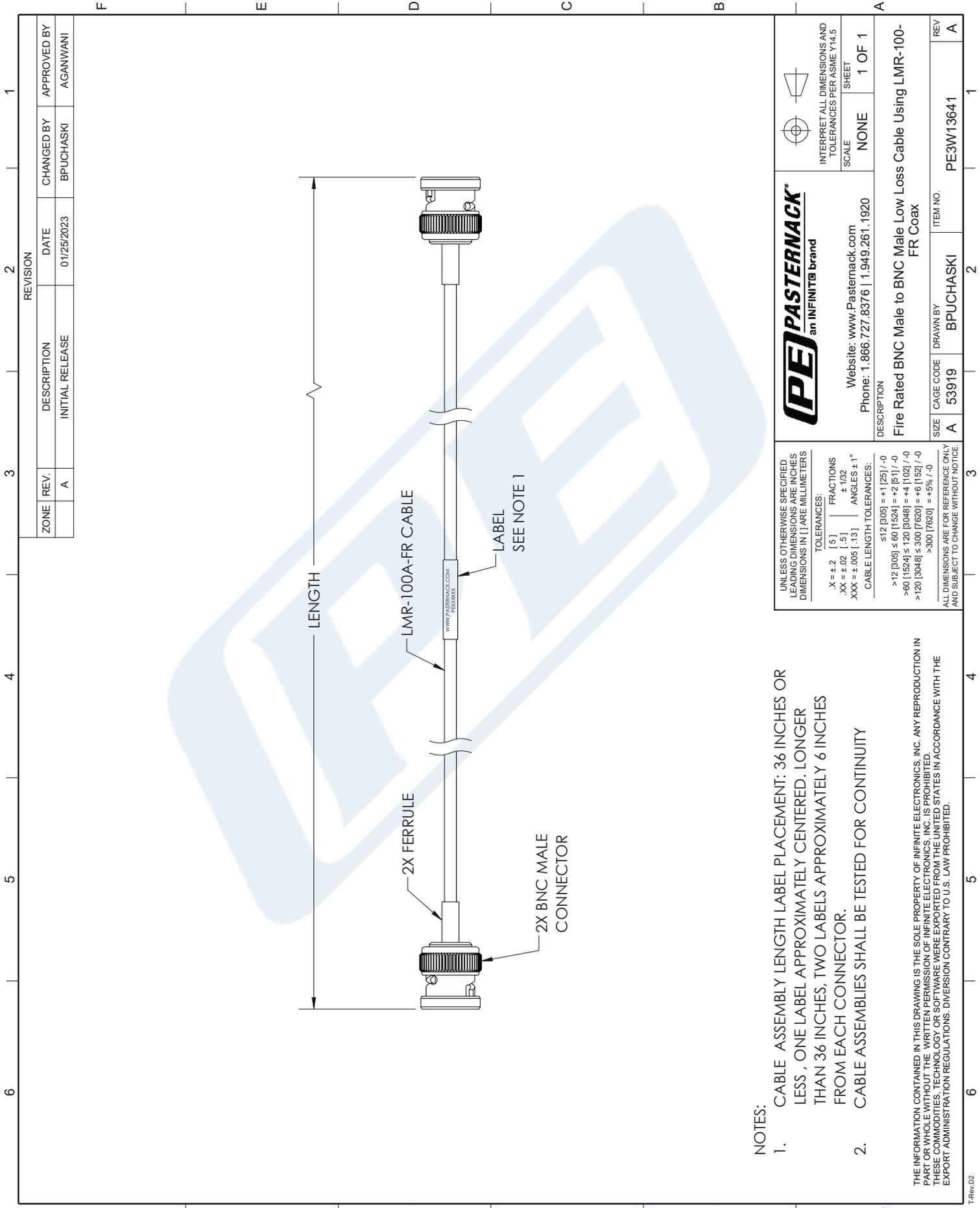
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated BNC Male to BNC Male Low Loss Cable Using LMR-100-FR Coax PE3W13641](https://www.pasternack.com/fire-rated-bnc-male-to-bnc-male-low-loss-cable-using-lmr-100-fr-pe3w13641-p.aspx)

URL: <https://www.pasternack.com/fire-rated-bnc-male-to-bnc-male-low-loss-cable-using-lmr-100-fr-pe3w13641-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.

# PE3W13641 CAD Drawing

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



**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. 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.

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	
X = ±.2 [ .5 ]	FRACTIONS ± 1/32
.XX = ±.02 [ .13 ]	ANGLES ± 1°
XXX = ±.005 [ .13 ]	CABLE LENGTH TOLERANCES:
	≤12 [305] = +1 [25] / -0
	>12 [305] ≤ 60 [1524] = +2 [51] / -0
	>60 [1524] ≤ 120 [3048] = +4 [102] / -0
	>120 [3048] ≤ 300 [7620] = +6 [152] / -0
	>300 [7620] = +5% / -0
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.	

<b>PE PASTERNAK</b> an INFINITO brand		
Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> Phone: 1.866.727.8376   1.949.261.1920		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5
DESCRIPTION Fire Rated BNC Male to BNC Male Low Loss Cable Using LMR-100-FR Coax		SCALE NONE
SIZE A 53919		SHEET 1 OF 1
DRAWN BY BPUCHASKI		REV A
ITEM NO. PE3W13641		