



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](#)



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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]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ω/1000ft [Ω/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]

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

Plotted and Other Data

Notes:

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RF Cable Assemblies Technical Data Sheet

PE3W13641

How to Order

Part Number Configuration:

PE3W13641

- **xx**

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

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

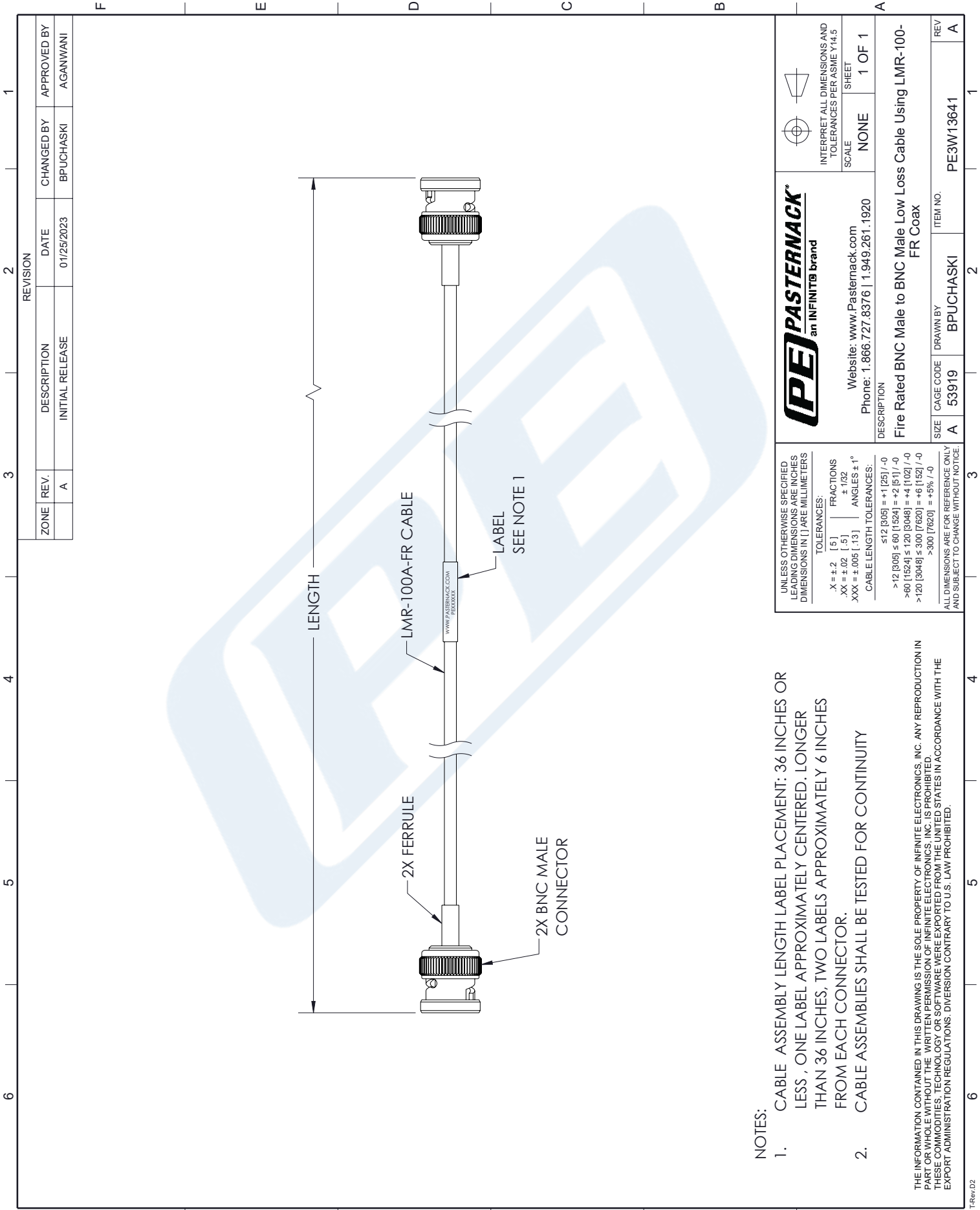
Fire Rated BNC Male to BNC Male Low Loss Cable Using LMR-100-FR Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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>

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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

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS		PE PASTERNACK an INFINITI [®] brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
TOLERANCES:		Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE NONE	
X = ±.2 [.5] FRACTIONS .XX = ±.02 [.5] ± 1/32		DESCRIPTION Fire Rated BNC Male to BNC Male Low Loss Cable Using LMR-100-FR Coax		SHEET 1 OF 1	
XXX = ±.005 [.13] ANGLES ± 1°		SIZE A		REV A	
CABLE LENGTH TOLERANCES:		DRAWN BY BPUCHASKI		ITEM NO. PE3W13641	
≤12 [305] = ±1 [25] / -0		CAGE CODE 53919		1	
>12 [305] ≤ 60 [1524] = ±2 [51] / -0		1		2	
>60 [1524] ≤ 120 [3048] = ±4 [102] / -0		1		3	
>120 [3048] ≤ 300 [7620] = ±6 [152] / -0		1		4	
>300 [7620] = ±5% / -0		1		5	
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.		1		6	