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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

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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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

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

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How to Order

Part Number Configuration: **PE3W13641 - xx uu**

- uu — Unit of Measure:
  - cm = Centimeters
  - <blank> = Inches
- xx — Length
- PE3W13641 — 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

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.

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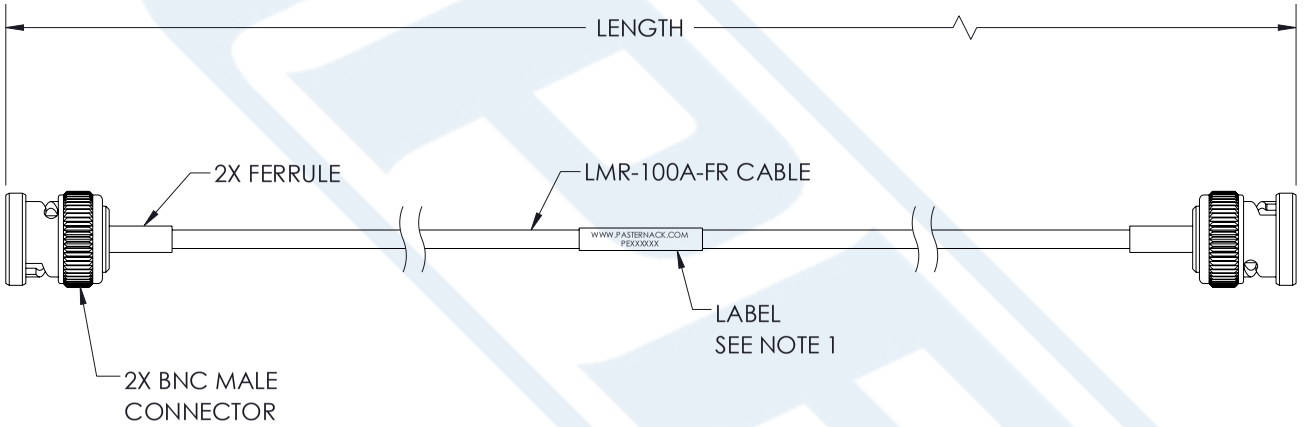
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PE3W13641 CAD Drawing

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

REVISION					
ZONE	REV.	DESCRIPTION	DATE	CHANGED BY	APPROVED BY
	A	INITIAL RELEASE	01/25/2023	BPUCHASKI	AGANWANI



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

TOLERANCES:

.X = ±.2 [5]
.XX = ±.02 [.5]
.XXX = ±.005 [.13]

FRACTIONS ± 1/32
ANGLES ± 1°

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.

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE	SHEET
NONE	1 OF 1

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

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	BPUCHASKI	PE3W13641	A

PE3W13641 REV 1.0

T-Rev.D2