



SMA Male to BNC Male Cable 24 Inch Length Using LMR-240 Coax

RF Cable Assemblies Technical Data Sheet

PE3C1830-24

Configuration

- Connector 1: SMA Male
- Connector 2: BNC Male
- Cable Type: LMR-240

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket

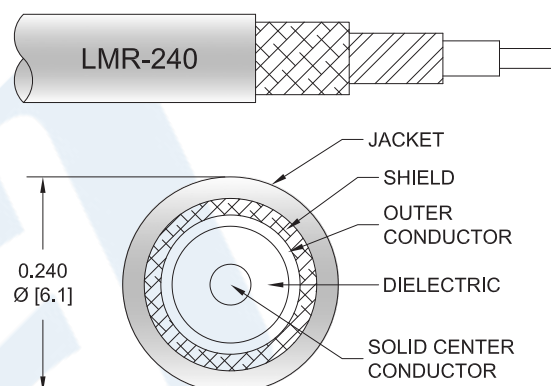
Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C1830-24 SMA male to BNC male 24 inch cable using LMR-240 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 SMA to BNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240 coax. The PE3C1830-24 SMA male to BNC male cable assembly operates to 4 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: [SMA Male to BNC Male Cable 24 Inch Length Using LMR-240 Coax PE3C1830-24](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|-----------------|
| Frequency Range | DC | | 4 | GHz |
| VSWR | | 1.45:1 | | |
| Velocity of Propagation | | 84 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.21 [3.97] | | ns/ft [ns/m] |
| Capacitance | | 24.2 [79.4] | | pF/ft [pF/m] |
| Inductance | | 0.06 [0.2] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 3.2 [10.5] | | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor | | 3.89 [12.76] | | Ω/1000ft [Ω/Km] |
| Jacket Spark | | | 5,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 0.1 | 0.25 | 0.5 | 1 | 4 | GHz |
| Insertion Loss (Max.) | 0.24 | 0.28 | 0.32 | 0.36 | 0.52 | dB |

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.2dB of connector loss.

Mechanical Specifications

Cable Assembly

| | |
|----------|--------------------|
| Length* | 24 in [609.6 mm] |
| Diameter | 0.58 in [14.73 mm] |

Cable

| | |
|--------------------------------------|---------------------|
| Cable Type | LMR-240 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper |
| Dielectric Type | PE (F) |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Tinned Copper Braid |
| Jacket Material | PE, Black |
| Jacket Diameter | 0.24 in [6.1 mm] |

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| | |
|------------------------------|------------------------|
| One Time Minimum Bend Radius | 0.75 in [19.05 mm] |
| Repeated Minimum Bend Radius | 2.5 in [63.5 mm] |
| Bending Moment | 0.25 lbs-ft [0.34 N-m] |
| Flat Plate Crush | 20 lbs/in [0.36 Kg/mm] |
| Tensile Strength | 80 lbs [36.29 Kg] |

Connectors

| Description | Connector 1 | Connector 2 |
|------------------------------------|----------------------------|---------------|
| Type | SMA Male | BNC Male |
| Specification | MIL-STD-348 | MIL-STD-348 |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Beryllium Copper, Gold | Brass, Gold |
| Contact Plating Specification | ASTM B488 | |
| Dielectric Type | Teflon | PTFE |
| Body Material and Plating | Passivated Stainless Steel | Brass, Nickel |
| Body Plating Specification | SAE-AMS-2700 | |
| Coupling Nut Material and Plating | Passivated Stainless Steel | Brass, Nickel |
| Coupling Nut Plating Specification | SAE-AMS-2700 | |

Mechanical Specification Notes:

*All cable assemblies have a length tolerance of 1.5% or $\pm 3/8"$, whichever is greater.

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 to BNC Male Cable 24 Inch Length Using LMR-240 Coax PE3C1830-24](#)

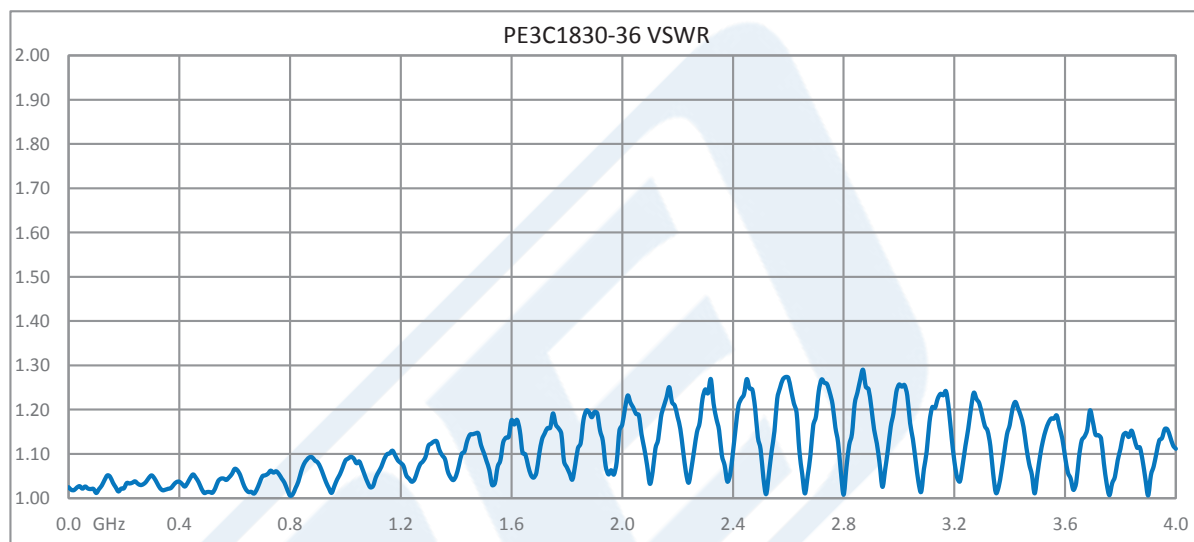


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Typical Performance Data



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How to Order

Part Number Configuration:

PE3C1830

- **xx**

uu

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

Example: PE3C1830-12 = 12 inches long cable
PE3C1830-100cm = 100 cm long cable

SMA Male to BNC Male Cable 24 Inch Length Using LMR-240 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.

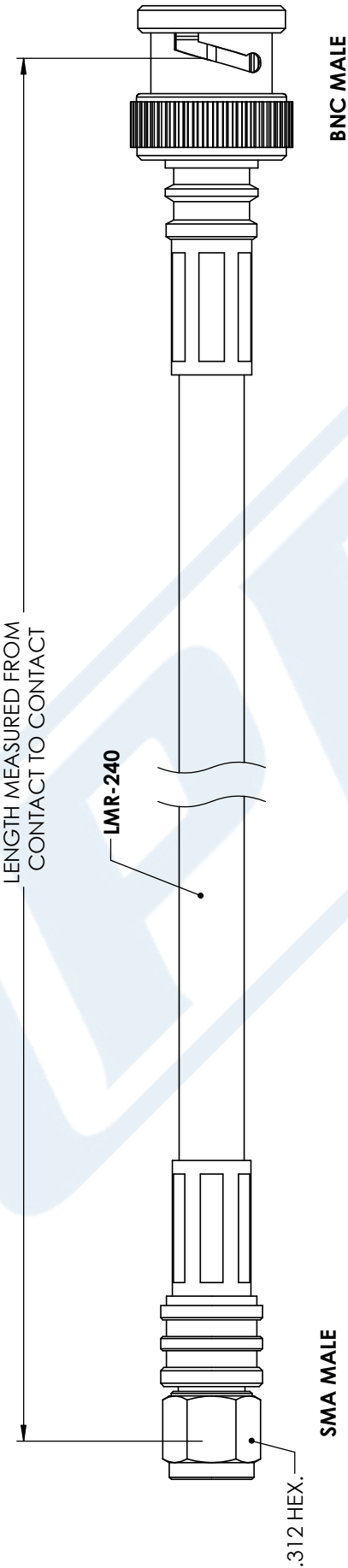
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URL: <https://www.pasternack.com/sma-male-bnc-male-lmr240-cable-assembly-pe3c1830-24-p.aspx>

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.

PE3C1830-24 CAD Drawing

SMA Male to BNC Male Cable 24 Inch Length Using LMR-240 Coax



| STANDARD TOLERANCES | |
|---------------------|--------|
| .X | ±0.2 |
| .XX | ±0.01 |
| .XXX | ±0.005 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

PE

PASTERNAK®

THE ENGINEER'S RF SOURCE

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Website: www.pasternack.com | E-Mail: sales@pasternack.com

| | |
|-----------|----------|
| DWG TITLE | PE3C1830 |
| CAGE CODE | 53919 |

| | | | | | | | |
|---|----------|----------|-------|-----|------|---|--------|
| NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm]. | CAD FILE | 10/15/18 | SCALE | N/A | SIZE | A | CN2245 |
|---|----------|----------|-------|-----|------|---|--------|