



Hex Coupling Nut N Male to N Male Right Angle Low Loss Cable Using LMR-240 Coax

TECHNICAL DATA SHEET

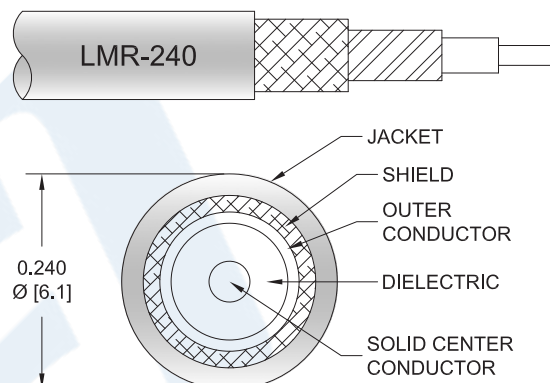
PE3W02683

Configuration

- Connector 1: N Male
- Connector 2: N Male Right Angle
- Cable Type: LMR-240
- Coax Flex Type: Flexible

Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W02683 type N male to type N male right angle 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 type N to type N cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240 coax. The PE3W02683 type N male to type N male cable assembly operates to 5.8 GHz. The right angle type N interface on the LMR-240 cable allows for easier connections in tight spaces. 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: [Hex Coupling Nut N Male to N Male Right Angle Low Loss Cable Using LMR-240 Coax PE3W02683](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|-----------------|
| Frequency Range | DC | | 5.8 | GHz |
| VSWR | | | 1.4:1 | |
| 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

| Part Number | Length | Description | F1 | F2 | F3 | F4 | F5 | Units | Weight (lbs) |
|--------------|--------------------------|-----------------------|------|------|------|------|------|-------|--------------|
| | | Frequency | 250 | 500 | 1000 | 2500 | 5800 | MHz | |
| PE3W02683 | Custom Lengths Available | Insertion Loss (Typ.) | 0.04 | 0.06 | 0.08 | 0.12 | 0.2 | dB/ft | |
| | | | 0.14 | 0.2 | 0.27 | 0.4 | 0.66 | dB/m | |
| PE3W02683-12 | 12 inch | Insertion Loss (Typ.) | 0.29 | 0.33 | 0.38 | 0.48 | 0.64 | dB | 0.054 |
| PE3W02683-24 | 24 inch | Insertion Loss (Typ.) | 0.33 | 0.39 | 0.46 | 0.6 | 0.84 | dB | 0.083 |
| PE3W02683-36 | 36 inch | Insertion Loss (Typ.) | 0.37 | 0.45 | 0.54 | 0.72 | 1.04 | dB | 0.11 |
| PE3W02683-48 | 48 inch | Insertion Loss (Typ.) | 0.41 | 0.51 | 0.62 | 0.84 | 1.24 | dB | 0.14 |
| PE3W02683-60 | 60 inch | Insertion Loss (Typ.) | 0.45 | 0.57 | 0.7 | 0.96 | 1.44 | dB | 0.167 |

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*SQRT(FGHz) dB
 Loss due to Connector 2: 0.2 dB
 Base Weight: 0.054 pounds
 Additional Weight per Inch: 0.00234 pounds

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 and 0.2 dB for the right angle connector.

Mechanical Specifications

Cable Assembly

Weight 0.218 lbs [98.88 g]

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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] |
| 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 | N Male Threaded | N Male Right Angle Threaded |
| Specification | MIL-STD-348 | |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Coupling Nut Material and Plating | Brass, Tri-Metal | |

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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TECHNICAL DATA SHEET

PE3W02683

How to Order

Part Number Configuration:

PE3W02683

- **xx**

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

Example: PE3W02683-12 = 12 inches long cable
PE3W02683-100cm = 100 cm long cable

Hex Coupling Nut N Male to N Male Right Angle Low Loss Cable 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.

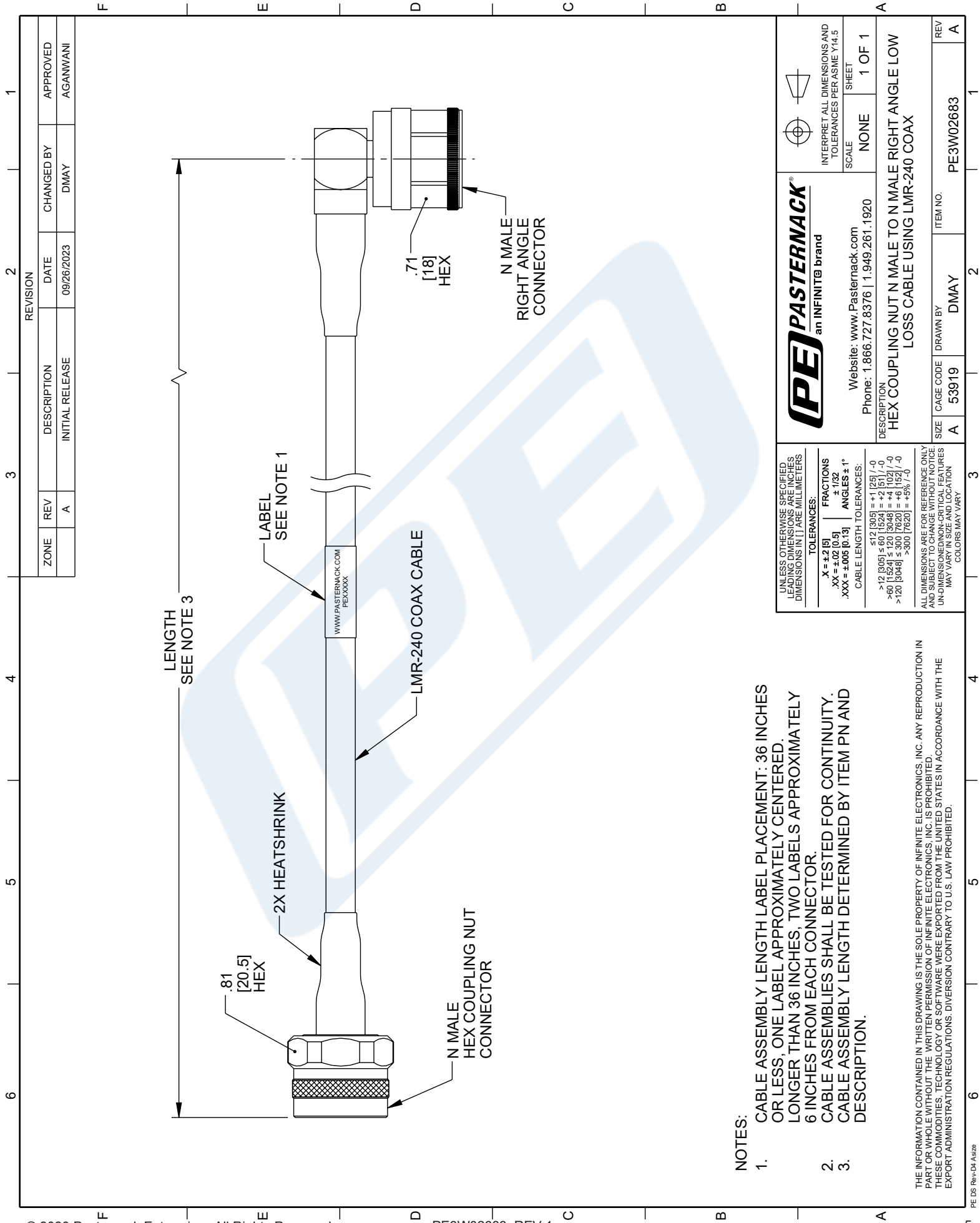
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Hex Coupling Nut N Male to N Male Right Angle Low Loss Cable Using LMR-240 Coax PE3W02683](https://www.pasternack.com/hex-coupling-nut-n-male-to-n-male-right-angle-low-loss-cable-using-lmr-240-coax-pe3w02683-p.aspx)

URL: <https://www.pasternack.com/hex-coupling-nut-n-male-to-n-male-low-loss-cable-using-lmr-240-pe3w02683-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.

PE3W02683 CAD Drawing

Hex Coupling Nut N Male to N Male Right Angle Low Loss Cable Using LMR-240 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.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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| | |
|---|------------------|
| UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [] ARE MILLIMETERS | |
| TOLERANCES: | |
| .X = ±.2 [5] | FRACTIONS ± 1/32 |
| .XX = ±.02 [0.5] | ANGLES ± 1° |
| .XXX = ±.005 [0.13] | |
| CABLE LENGTH TOLERANCES: | |
| <12 [305] | ±.1 [25] / -0 |
| >12 [305] ≤ 60 [1524] | ±.2 [5] / -0 |
| >60 [1524] ≤ 120 [3048] | ±.4 [10] / -0 |
| >120 [3048] ≤ 300 [7620] | ±.6 [15] / -0 |
| >300 [7620] | ±.8 [20] / -0 |

ALL DIMENSIONS ARE FOR REFERENCE ONLY. ALL DIMENSIONS ARE TO BE TAKEN FROM THE UNDIMENSIONED NON-CRITICAL FEATURES. DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

| | |
|---|---|
| PE PASTERNAK an INFINITI® brand | |
| Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920 | |
| DESCRIPTION | HEX COUPLING NUT N MALE TO N MALE RIGHT ANGLE LOW LOSS CABLE USING LMR-240 COAX |
| SCALE | NONE |
| SHEET | 1 OF 1 |
| INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 | |

| | | | | | | | | | |
|------|---|-----------|-------|----------|------|----------|-----------|-----|---|
| SIZE | A | CAGE CODE | 53919 | DRAWN BY | DMAY | ITEM NO. | PE3W02683 | REV | A |
|------|---|-----------|-------|----------|------|----------|-----------|-----|---|