

## N Male to N Male Low Loss Cable Using LMR-240 Coax with HeatShrink



### PE3C0053/HS

#### Configuration

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

#### Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C0053/HS type N male to type N male 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 PE3C0053/HS type N male to type N male cable assembly operates to 8 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.

#### Electrical Specifications

| Description                   | Minimum | Typical      | Maximum | Units                 |
|-------------------------------|---------|--------------|---------|-----------------------|
| Frequency Range               | DC      |              | 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]   |         | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor |         | 3.89 [12.76] |         | Ohms/1000ft [Ohms/Km] |

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#### Electrical Specifications

| Description  | Minimum | Typical | Maximum | Units |
|--------------|---------|---------|---------|-------|
| Jacket Spark |         |         | 5,000   | Vrms  |

#### Specifications by Frequency

| Part Number    | Length                   | Description           | F1        | F2    | F3    | F4    | F5    | Units | Weight (lbs) |
|----------------|--------------------------|-----------------------|-----------|-------|-------|-------|-------|-------|--------------|
|                |                          |                       | Frequency |       |       |       |       | MHz   |              |
| PE3C0053/HS    | Custom Lengths Available | Insertion Loss (Typ.) | 0.039     | 0.056 | 0.076 | 0.129 | 0.204 | dB/ft |              |
|                |                          |                       | 0.13      | 0.19  | 0.25  | 0.43  | 0.67  | dB/m  |              |
| PE3C0053/HS-12 | 12 inch                  | Insertion Loss (Typ.) | 0.24      | 0.26  | 0.28  | 0.33  | 0.41  | dB    | 0.169        |
| PE3C0053/HS-24 | 24 inch                  | Insertion Loss (Typ.) | 0.28      | 0.32  | 0.36  | 0.46  | 0.61  | dB    | 0.202        |
| PE3C0053/HS-36 | 36 inch                  | Insertion Loss (Typ.) | 0.32      | 0.37  | 0.43  | 0.59  | 0.82  | dB    | 0.235        |
| PE3C0053/HS-48 | 48 inch                  | Insertion Loss (Typ.) | 0.36      | 0.43  | 0.51  | 0.72  | 1.02  | dB    | 0.268        |
| PE3C0053/HS-60 | 60 inch                  | Insertion Loss (Typ.) | 0.4       | 0.48  | 0.58  | 0.85  | 1.22  | dB    | 0.301        |

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 dB         |
| Loss due to Connector 2:    | 0.1 dB         |
| Base Weight:                | 0.169 pounds   |
| Additional Weight per Inch: | 0.00275 pounds |

#### Mechanical Specifications

##### Cable Assembly

|                |                     |
|----------------|---------------------|
| Width/Diameter | 0.5 in [12.7 mm]    |
| Weight         | 0.156 lbs [70.76 g] |

##### 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]      |

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#### Connectors

| Description                        | Connector 1      | Connector 2      |
|------------------------------------|------------------|------------------|
| Type                               | N Male           | N Male           |
| Specification                      | MIL-STD-348A     | MIL-STD-348A     |
| Impedance                          | 50 Ohms          | 50 Ohms          |
| Configuration                      | Straight         | Straight         |
| Contact Material and Plating       | Brass, Gold      | Brass, Gold      |
| Contact Plating Specification      | 30μ in. minimum  | 30μ in. minimum  |
| Dielectric Type                    | Teflon           | Teflon           |
| Body Material and Plating          | Brass, Nickel    | Brass, Nickel    |
| Body Plating Specification         | 100μ in. minimum | 100μ in. minimum |
| Coupling Nut Material and Plating  | Brass, Nickel    | Brass, Nickel    |
| Coupling Nut Plating Specification | 100μ in. minimum | 100μ in. minimum |

#### Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

#### Plotted and Other Data

Notes:

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### PE3C0053/HS

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**PE3C0053/HS - xx uu**

Unit of Measure:  
cm = Centimeters  
<blank> = Inches

Length

Base Number

Example: PE3C0053/HS-12 = 12 inches long cable  
PE3C0053/HS-100cm = 100 cm long cable

N Male to N Male Low Loss Cable Using LMR-240 Coax with HeatShrink 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.

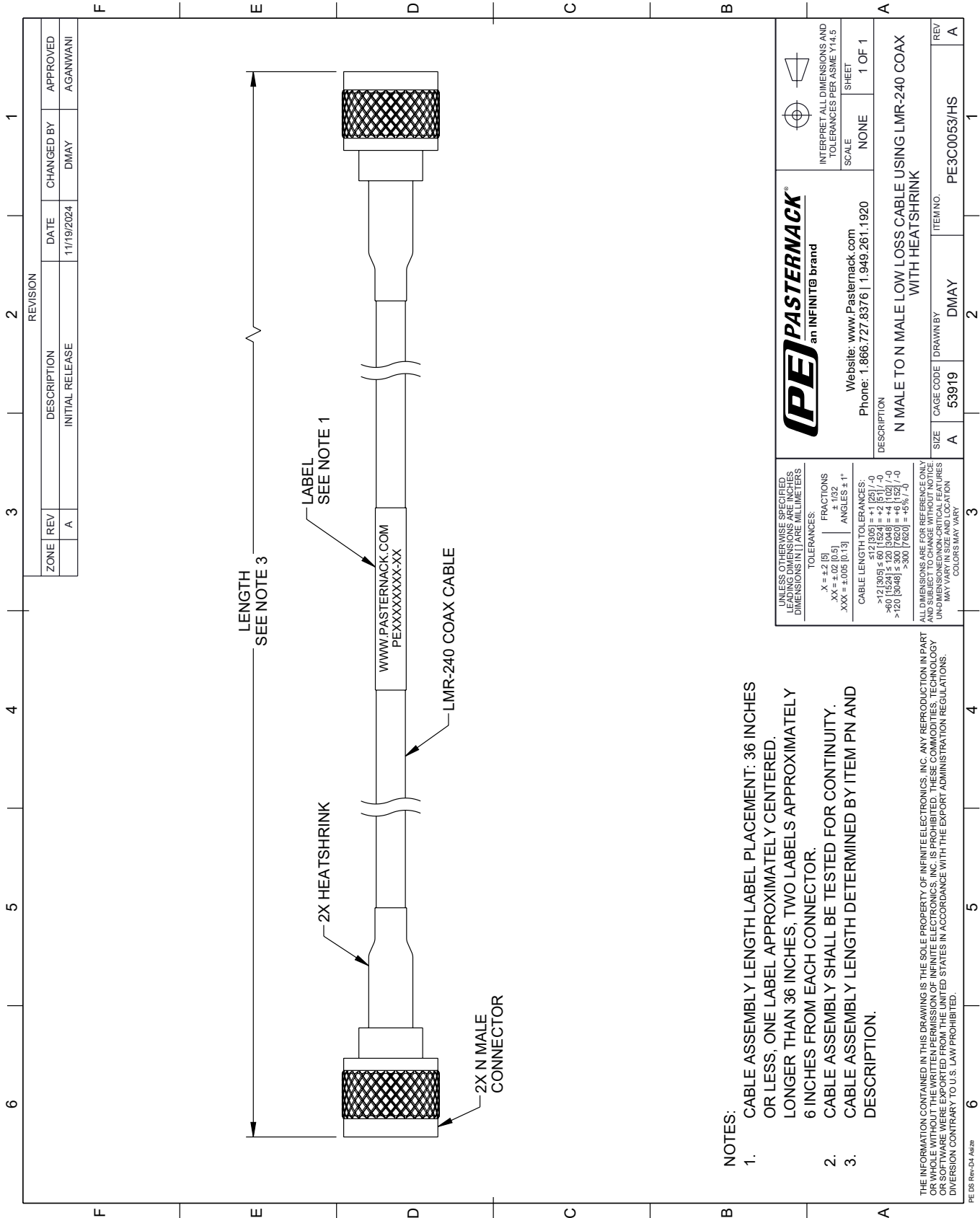
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Male Low Loss Cable Using LMR-240 Coax with HeatShrink PE3C0053/HS](#)

URL: <https://www.pasternack.com/n-male-to-n-male-low-loss-cable-using-lmr-240-with-heatshrink-pe3c0053-hs-p.aspx>

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# PE3C0053/HS CAD Drawing

N Male to N Male Low Loss Cable Using LMR-240 Coax with HeatShrink



**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 ASSEMBLY 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.                           |             | <b>PE PASTERNAK</b><br>an INFINIT <sup>®</sup> brand                |       | INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 |      |
| TOLERANCES:  |             | Fractions   |       | SCALE  |      |
| .X = ±.2 [5]   | ±.132       | .XX = ±.02 [0.5]  |       | NONE   |      |
| .XXX = ±.005 [0.13]  | ANGLES ± 1° | CABLE LENGTH TOLERANCES:  |       | SHEET  |      |
|  |             | >12 [305] ≤ 60 [1524] = +2 [51] / -0                                |       | 1 OF 1   |      |
|  |             | >60 [1524] ≤ 120 [3048] = +4 [102] / -0                             |       |  |      |
|  |             | >120 [3048] ≤ 300 [7620] = +5% / -0                                 |       |  |      |
| ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY. |             | Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> |       |  |      |
|  |             | Phone: 1.866.727.8376   1.949.261.1920                              |       |  |      |
| DESCRIPTION  |             | N MALE TO N MALE LOW LOSS CABLE USING LMR-240 COAX WITH HEATSHRINK  |       |  |      |
| SIZE   | A           | CAGE CODE   | 53919 | DRAWN BY   | DMAY |
| ITEM NO.   | PE3C0053/HS |   | REV   | A  |      |