

N Male to N Male Low Loss Cable Using LMR-LW400 Coax with HeatShrink



RF Cable Assemblies Technical Data Sheet

PE3W12461/HS

Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: LMR-LW400

Features

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

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W12461/HS type N male to type N male cable using LMR-LW400 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-LW400 coax. The PE3W12461/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.

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-LW400 Coax with HeatShrink PE3W12461/HS](#)

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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|-------------------------------|---------|--------------|---------|-----------------|
| Frequency Range | DC | | 8 | GHz |
| Velocity of Propagation | | 84 | | % |
| RF Shielding | 90 | | | dB |
| Group Delay | | 1.2 [3.94] | | ns/ft [ns/m] |
| Capacitance | | 23.9 [78.41] | | pF/ft [pF/m] |
| Inductance | | 0.06 [0.2] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 1.39 [4.56] | | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor | | 6.1 [20.01] | | Ω/1000ft [Ω/Km] |
| Jacket Spark | | | 8,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|------|-------|------|-------|
| Frequency | 0.5 | 1 | 2 | 4 | 8 | GHz |
| Insertion Loss (Typ.) | 0.028 | 0.041 | 0.06 | 0.086 | 0.13 | dB/ft |
| | 0.09 | 0.13 | 0.2 | 0.28 | 0.43 | dB/m |

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.2 lbs [90.72 g]

Cable

| | |
|--------------------------------------|---------------------|
| Cable Type | LMR-LW400 |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper |
| Dielectric Type | Foam PE |
| Number of Shields | 2 |
| Shield Layer 1 | Aluminum Tape |
| Shield Layer 2 | Aluminum |
| Jacket Material | PE, Black |
| Jacket Diameter | 0.405 in [10.29 mm] |
| One Time Minimum Bend Radius | 1 in [25.4 mm] |
| Repeated Minimum Bend Radius | 4 in [101.6 mm] |

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Bending Moment
Flat Plate Crush
Tensile Strength

0.5 lbs-ft [0.68 N-m]
40 lbs/in [0.71 Kg/mm]
160 lbs [72.57 Kg]

Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|---------------------|---------------------|
| Type | N Male | N Male |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Gold | Brass, Gold |
| Contact Plating Specification | 15 μ in minimum | 15 μ in minimum |
| Dielectric Type | PTFE | PTFE |
| Body Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Coupling Nut Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Hex Size | 18 mm | 18 mm |

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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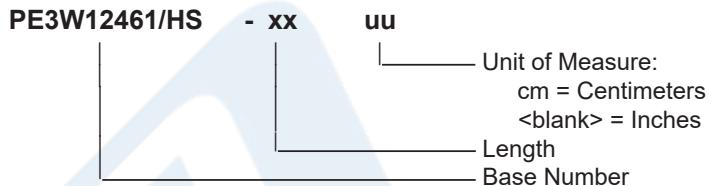


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How to Order

Part Number Configuration:



Example: PE3W12461/HS-12 = 12 inches long cable
PE3W12461/HS-100cm = 100 cm long cable

N Male to N Male Low Loss Cable Using LMR-LW400 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-LW400 Coax with HeatShrink PE3W12461/HS](#)

URL: <https://www.pasternack.com/n-male-to-n-male-low-loss-cable-using-lmr-lw400-with-heatshrink-pe3w12461-hs-p.aspx>

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PE3W12461/HS CAD Drawing

N Male to N Male Low Loss Cable Using LMR-LW400 Coax with HeatShrink

F

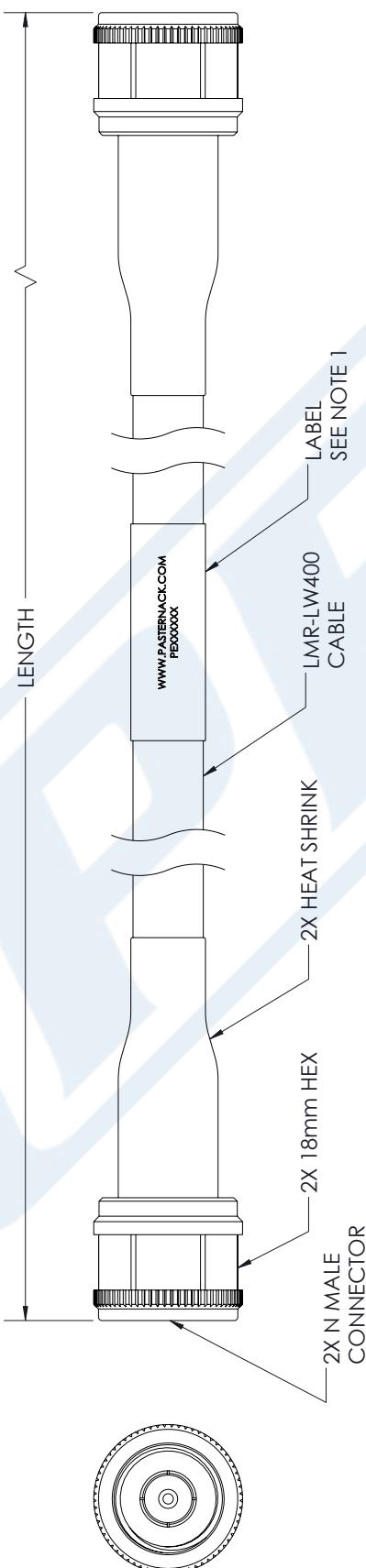
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NOTES:

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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INTERPRET ALL DIMENSIONS AND
TOLERANCES PER ASME Y14.5

SCALE
NONE
1 OF 1

Website: www.Pasterнак.com
Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION
N MALE TO N MALE LOW LOSS CABLE USING LMR-LW400
COAX WITH HEATSHRINK

ITEM NO.
PE3W12461/HS
REV
A

| SIZE | CAGE CODE | DRAWN BY | REV |
|------|-----------|------------|-----|
| A | 53919 | AKRESEWSKI | A |