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THE ENGINEER'S RF SOURCE

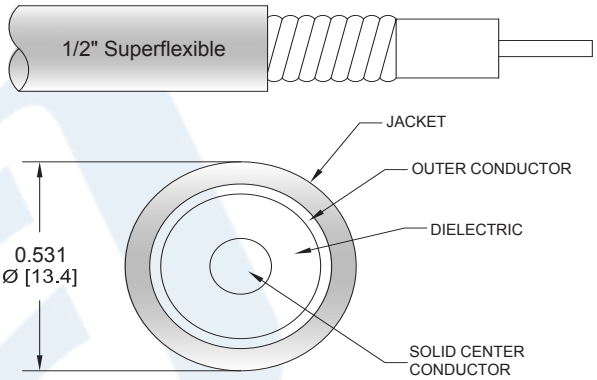


# N Male to N Male Low PIM Cable 36 Inch Length Using 1/2 inch Superflexible Coax

## RF Cable Assemblies Technical Data Sheet PE37968-36

### Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: 1/2" Superflexible




### Features

- Max Frequency 2.7 GHz
- Low PIM: -160 dBc Max
- 82% Phase Velocity
- PE Jacket

### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

### Description

Pasternack's PE37968-36 type N male to type N male low PIM 36 inch cable using 1/2 inch superflexible coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack type N to type N cable assembly has a male to male gender configuration with 50 ohm corrugated 1/2" superflexible coax. The PE37968-36 type N male to type N male cable assembly operates to 2.7 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc.

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 | | 2.7 | GHz |
| Return Loss | | | -26 | dB |
| Velocity of Propagation | | 82 | | % |
| Passive Intermodulation | | | -160 | dBc |
| Capacitance | | 24.4 [80.05] | | pF/ft [pF/m] |
| Inductance | | 0.06 [0.2] | | uH/ft [uH/m] |
| DC Resistance Inner Conductor | | 0.92 [3.02] | | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor | | 1.13 [3.71] | | Ω/1000ft [Ω/Km] |

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 PIM Cable 36 Inch Length Using 1/2 inch Superflexible Coax PE37968-36

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

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### Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|---|---|---|---|---|---|---|
| Frequency | 1 | 2.2 | 2.7 | | | GHz |
| Insertion Loss (Typ.) | 0.096 | 0.15 | 0.168 | | | dB |
| Return Loss (Max.) | -30 | -28 | -26 | | | dB |

Electrical Specification Notes:
Insertion loss does not include the loss of the connectors.
Insertion loss is estimated as 0.05 x sqrt(fGHz) dB per connector.
Passive intermodulation is measured with two 20W tones.

### Mechanical Specifications

**Cable Assembly**

| | |
|---|---|
| Length* | 36 in [914.4 mm] |
| Weight | 0.558 lbs [253.1 g] |

**Cable**

| | |
|---|---|
| Cable Type | 1/2" Superflexible |
| Impedance | 50 Ohms |
| Inner Conductor Type | Solid |
| Inner Conductor Material and Plating | Copper Clad Aluminum |
| Dielectric Type | PE (F) |
| Outer Conductor Material and Plating | Helically Corrugated Copper Tube |
| Outer Conductor Diameter | 0.484 in [12.29 mm] |
| Jacket Material | PE, Black |
| Jacket Diameter | 0.531 in [13.49 mm] |
| One Time Minimum Bend Radius | 0.59 in [14.99 mm] |
| Repeated Minimum Bend Radius | 1.18 in [29.97 mm] |
| Typical Flex Cycles | 20 |
| Flat Plate Crush | 85.6 lbs/in [1.53 Kg/mm] |
| Tensile Strength | 225 lbs [102.06 Kg] |

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### Connectors

| Description | Connector 1 | Connector 2 |
|---|---|---|
| Type | N Male | N Male |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Silver | Brass, Silver |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | Brass, Silver | Brass, Silver |
| Body Material and Plating | Brass, Silver | Brass, Silver |
| Coupling Nut Material and Plating | Brass, Tri-Metal | Brass, Tri-Metal |
| Hex Size | 19 mm | 19 mm |
| Torque | 9.7 in-lbs [1.1 Nm] | 9.7 in-lbs [1.1 Nm] |

Mechanical Specification Notes:
*All cable assemblies have a length tolerance of 1.5% or ± 3/8", whichever is greater.

## Environmental Specifications

**Temperature**

| | |
|---|---|
| Operating Range | -40 to +80 deg C |

## Compliance Certifications (see product page for current document)

## Plotted and Other Data

Notes:
- Values at 25°C, sea level.

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### How to Order

Part Number Configuration: **PE37968 - xx uu**

- uu — Unit of Measure: cm = Centimeters, <blank> = Inches
- xx — Length
- PE37968 — Base Number

Example: PE37968-12 = 12 inches long cable
PE37968-100cm = 100 cm long cable

N Male to N Male Low PIM Cable 36 Inch Length Using 1/2 inch Superflexible Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% 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 PIM Cable 36 Inch Length Using 1/2 inch Superflexible Coax PE37968-36

URL: https://www.pasternack.com/n-male-n-male-1-2-inch-helical-cable-assembly-pe37968-36-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.

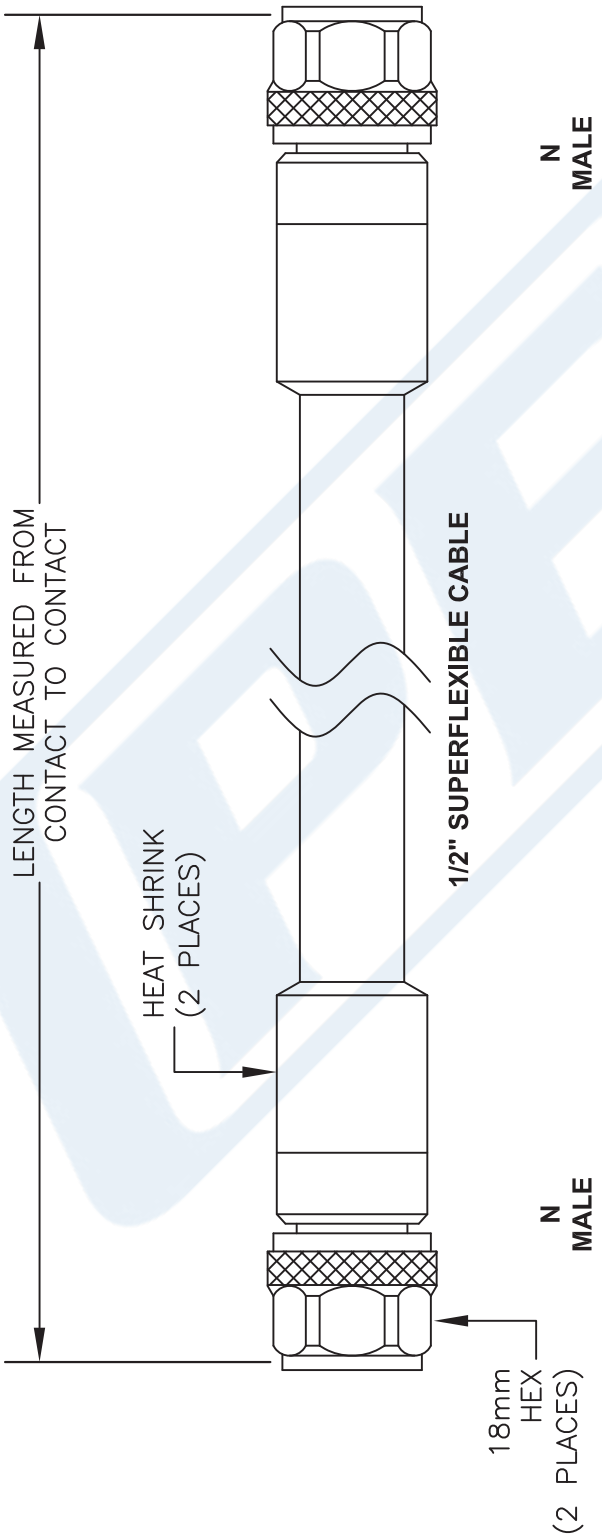
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# PE37968-36 CAD Drawing

N Male to N Male Low PIM Cable 36 Inch Length Using 1/2 inch Superflexible Coax




| STANDARD TOLERANCES |
|---|
| .X ±0.2 |
| .XX ±0.1 |
| .XXX ±0.05 |

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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].

DWG TITLE
PE37968

CAD FILE 110816 | SCALE N/A | SIZE A | 41742

FSCM NO. 53919

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