



N Male to N Male Low PIM Cable Using  
1/2 inch Flexible Coax, RoHS

TECHNICAL DATA SHEET

PE39805

Pasternack's corrugated cable assemblies are ideal for applications where durability and high power are needed. These high quality 50 ohm cable assemblies are constructed with a solid copper clad aluminum inner conductor, a foam dielectric, corrugated copper tube, and a tough polyethylene jacket. The solid inner and outer conductors are design to help minimize Intermodulation Distortion (IMD) in communications applications. Durability is ensured thanks to the Injected molded boot on the connectors for added strain relief. Our carefully selected assemblies provide the highest quality on the market with PIM ratings of -160 dBc and 1.11 VSWR's. Available in 1/2" Flexible and 1/2" Superflexible cable types in 7/16 DIN and N Type connector configurations.

**Features**

- 1/2" Flexible and 1/2" Superflexible cable
- 100% RF and PIM tested
- Low Insertion loss
- Low VSWR at 2.7 GHz
- -160 dBc PIM rating
- Velocity of Propagation at 88%

**Configuration**

|             |               |
|-------------|---------------|
| Connector 1 | N Male        |
| Connector 2 | N Male        |
| Cable Type  | 1/2" Flexible |

**Electrical Specifications**

|                         |               |
|-------------------------|---------------|
| Frequency Range         | DC to 2.7 GHz |
| Impedance               | 50 Ohms       |
| Maximum VSWR            | 1.11:1        |
| Return Loss             | 25.66 dB      |
| Velocity of Propagation | 88 %          |
| RF Shielding            | 120 dB        |
| Peak Power              | 40 KWatts     |
| Passive Intermodulation | -160 dBc      |

**Performance by Frequency**

**Frequency 1**

|                |                        |
|----------------|------------------------|
| Frequency      | 900 MHz                |
| VSWR           | 1.07:1                 |
| Insertion Loss | 0.02 dB/ft [0.07 dB/m] |

**Frequency 2**

|                |                       |
|----------------|-----------------------|
| Frequency      | 1.8 GHz               |
| VSWR           | 1.09:1                |
| Insertion Loss | 0.03 dB/ft [0.1 dB/m] |

**Frequency 3**

|                |                       |
|----------------|-----------------------|
| Frequency      | 2.2 GHz               |
| VSWR           | 1.09:1                |
| Insertion Loss | 0.03 dB/ft [0.1 dB/m] |

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 Using 1/2 inch Flexible Coax, RoHS PE39805](#)



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**Frequency 4**

|                |                        |
|----------------|------------------------|
| Frequency      | 2.7 GHz                |
| VSWR           | 1.11:1                 |
| Insertion Loss | 0.04 dB/ft [0.13 dB/m] |

**Mechanical Specifications**

**Temperature**

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

**Size**

|                              |                     |
|------------------------------|---------------------|
| Diameter                     | 0.629 in [15.98 mm] |
| Weight                       | 0.155 lbs [70.31 g] |
| Cable Color                  | Black               |
| One Time Minimum Bend Radius | 2.75 in [69.85 mm]  |
| Repeated Minimum Bend Radius | 4.72 in [119.89 mm] |

**Cable**

|                       |                      |
|-----------------------|----------------------|
| Cable Type            | 1/2" Flexible        |
| Inner Conductor Type  | Solid                |
| Cable Inner Conductor | Copper Clad Aluminum |
| No of Shields         | 1                    |
| Dielectric Type       | PE (F)               |
| Jacket Material       | PE                   |
| Jacket Diameter       | 0.629 in [15.98 mm]  |

**Connector 1**

|                                      |                     |
|--------------------------------------|---------------------|
| Type                                 | N Male              |
| Configuration                        | Straight            |
| Mating Cycles                        | 500                 |
| Inner Conductor Material and Plating | Brass, Silver       |
| Outer Conductor Material and Plating | Brass, Silver       |
| Coupling Nut Material and Plating    | Brass, Tri-Metal    |
| Hex Size                             | 19 mm               |
| Torque                               | 9.7 in-lbs [1.1 Nm] |
| Body Material and Plating            | Brass, Silver       |
| Dielectric Type                      | PTFE                |

**Connector 2**

|                                      |                     |
|--------------------------------------|---------------------|
| Type                                 | N Male              |
| Configuration                        | Straight            |
| Mating Cycles                        | 500                 |
| Inner Conductor Material and Plating | Brass, Silver       |
| Outer Conductor Material and Plating | Brass, Silver       |
| Coupling Nut Material and Plating    | Brass, Tri-Metal    |
| Hex Size                             | 19 mm               |
| Torque                               | 9.7 in-lbs [1.1 Nm] |

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Body Material and Plating  
Dielectric Type

Brass, Silver  
PTFE

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)  
RoHS Compliant

Yes

**Plotted and Other Data**

Notes:

- Values at +25 °C, sea level

**How to Order**

Part Number Configuration:

PE39805

- xx

uu

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

Example: PE39805-12 = 12 inches long cable  
PE39805-100cm = 100 cm long cable

N Male to N Male Low PIM Cable Using 1/2 inch Flexible Coax, RoHS 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.

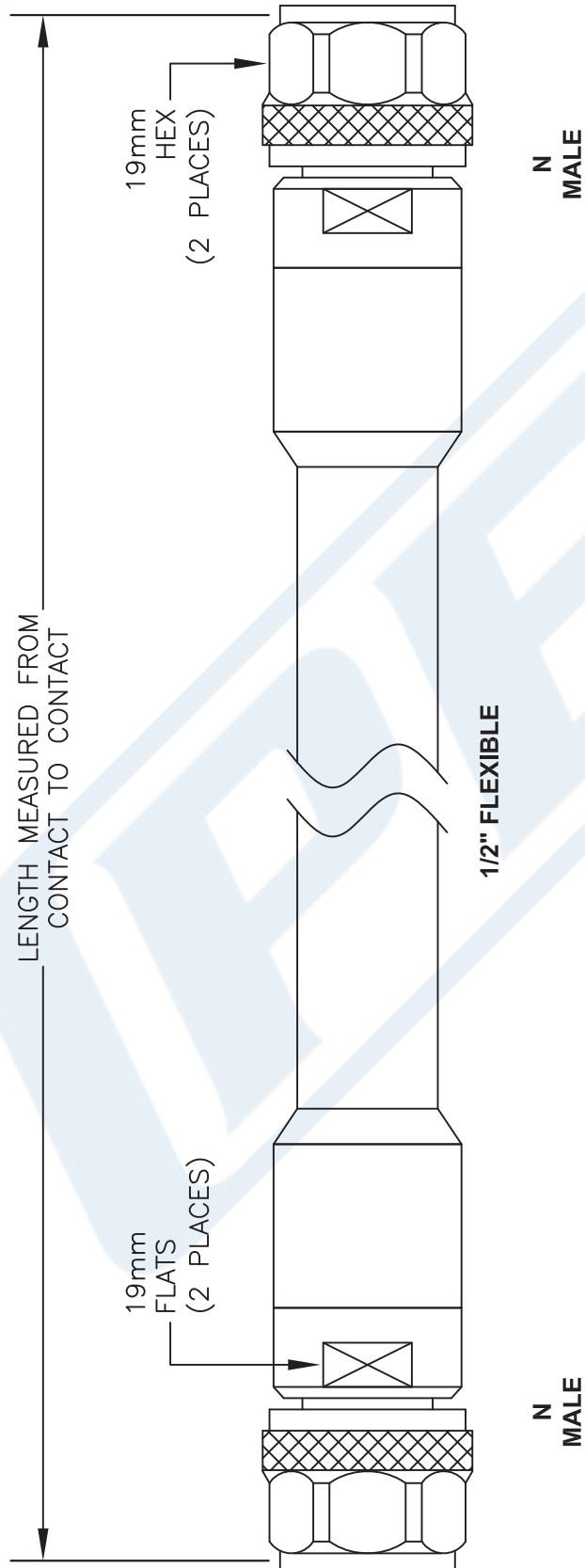
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URL: <http://www.pasternack.com/n-male-n-male-pe-1-2-fac-cable-assembly-pe39805-p.aspx>

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.

# PE39805 CAD Drawing

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## 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].
4. LENGTH TOLERANCE IS  $\pm 1.5\%$  OR  $3/8"$ , WHICHEVER IS GREATER.

## DWG TITLE

**PE39805**

FSCM NO. 53919

CAD FILE

120314

SCALE N/A

SIZE A

2233

**(PE) PASTERNAK®**  
THE ENGINEER'S RF SOURCE

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