



N Male Right Angle to N Male Right Angle Low PIM Cable Using 1/4 inch Superflexible Coax

RF Cable Assemblies Technical Data Sheet

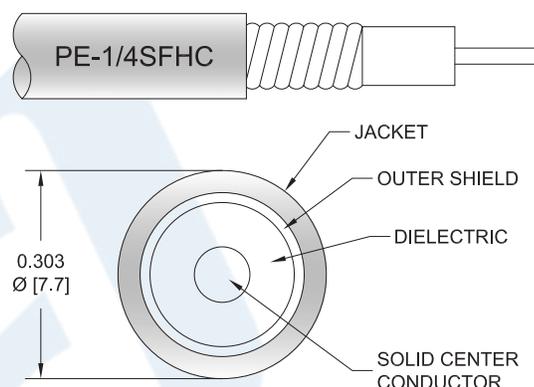
PE3C7846

Configuration

- Connector 1: N Male Right Angle
- Connector 2: N Male Right Angle
- Cable Type: 1/4" Superflexible

Features

- Max Frequency 6 GHz
- Low PIM: -150 dBc Max
- Shielding Effectivity > 120 dB
- 82% Phase Velocity
- PE Jacket
- Low PIM and Low Loss
- 100% Tested with PIM Test Results Marked on Cable



Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Low PIM Applications and PIM Testing

Description

Pasternack's PE3C7846 type N male right angle to type N male right angle cable using 1/4 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 1/4" superflexible coax. The PE3C7846 type N male to type N male cable assembly operates to 6 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -150 dBc. The right angle type N interfaces on the 1/4" superflexible cable allow for easier connections in tight spaces.

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 | | 6 | GHz |
| VSWR | | | 1.5:1 | |
| Velocity of Propagation | | 82 | | % |
| RF Shielding | 120 | | | dB |
| Passive Intermodulation | | | -150 | dBc |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Right Angle to N Male Right Angle Low PIM Cable Using 1/4 inch Superflexible Coax PE3C7846](#)



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| | | |
|-------------------------------|--------------|-----------------|
| Capacitance | 24.4 [80.05] | pF/ft [pF/m] |
| Inductance | 0.059 [0.19] | uH/ft [uH/m] |
| DC Resistance Inner Conductor | 3.2 [10.5] | Ω/1000ft [Ω/Km] |
| DC Resistance Outer Conductor | 2.53 [8.3] | Ω/1000ft [Ω/Km] |
| Jacket Spark | 2,000 | Vrms |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|-------|-------|-------|-------|
| Frequency | 0.1 | 0.25 | 0.5 | 1 | 3 | GHz |
| Insertion Loss (Typ.) | 0.016 | 0.026 | 0.039 | 0.057 | 0.107 | dB/ft |
| | 0.05 | 0.09 | 0.13 | 0.19 | 0.35 | |

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.3dB connector loss.

Mechanical Specifications

Cable Assembly

Diameter 0.85 in [21.59 mm]

Cable

Cable Type 1/4" Superflexible
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper Clad Aluminum
 Dielectric Type PE (F)
 Number of Shields 1
 Shield Layer 1 Helically Corrugated Copper Tube
 Jacket Material PE, Black
 Jacket Diameter 0.303 in [7.7 mm]

One Time Minimum Bend Radius 0.5 in [12.7 mm]
 Repeated Minimum Bend Radius 1 in [25.4 mm]
 Typical Flex Cycles 20
 Tensile Strength 79 lbs [35.83 Kg]

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Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|--------------------|--------------------|
| Type | N Male Right Angle | N Male Right Angle |
| Specification | IEC 61169-16 | IEC 61169-16 |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Brass, Silver | Brass, Silver |
| 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 |

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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PE3C7846

How to Order

Part Number Configuration:

PE3C7846

- **xx**

uu

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

Example: PE3C7846-12 = 12 inches long cable
PE3C7846-100cm = 100 cm long cable

N Male Right Angle to N Male Right Angle Low PIM Cable Using 1/4 inch Superflexible Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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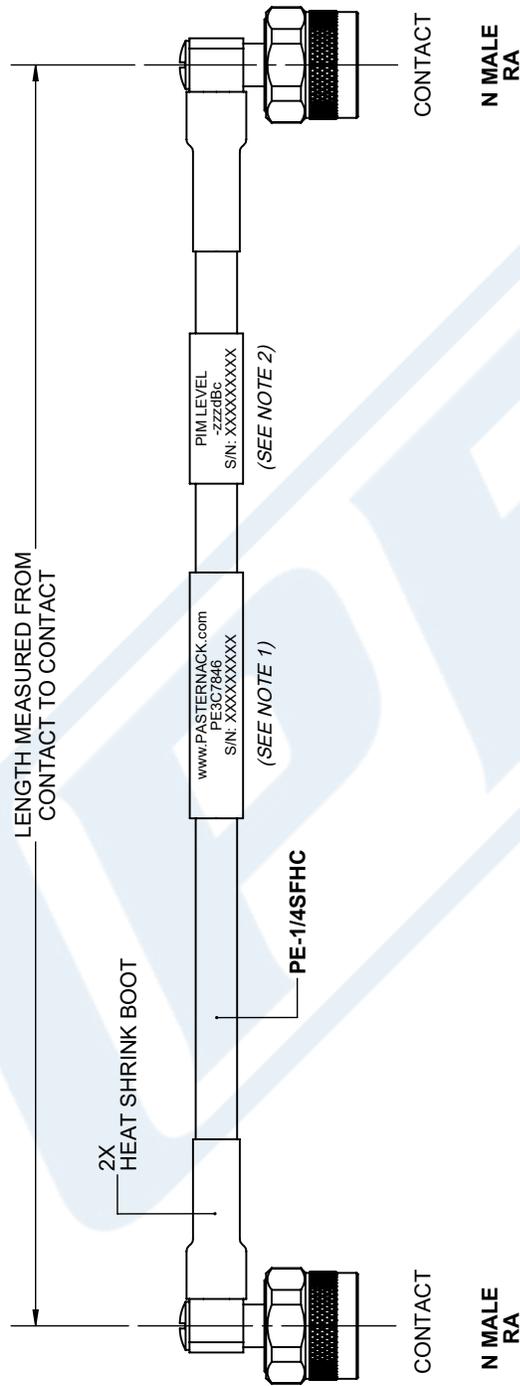
URL: <https://www.pasternack.com/n-male-n-male-pe-1-4-sfhc-cable-assembly-pe3c7846-p.aspx>

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.

PE3C7846 CAD Drawing

N Male Right Angle to N Male Right Angle Low PIM Cable Using 1/4 inch Superflexible Coax

| REVISIONS | | | |
|-----------|-----------------|-----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 1/14/2021 | S. ELLIS |



NOTES:

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12.0" FROM THE END OF THE CONNECTOR.
2. 6" FROM CABLE END 1 PLACE FOR ALL LENGTHS OF CABLE.

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

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|---|-------------------|-------------|-----------|------------|-------|--------|--------------|-------|-------------|--------------|----------|-----|--------------------------|----------|-----|----------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|----------|-----|--|---|
| <p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table style="font-size: small;"> <tr> <td>.X = ±.2</td> <td>[.008]</td> <td>FRACTIONS</td> </tr> <tr> <td>.XX = ±.02</td> <td>[.51]</td> <td>±.1/32</td> </tr> <tr> <td>.XXX = ±.005</td> <td>[.13]</td> <td>ANGLES ± 1°</td> </tr> </table> <p>CABLE LENGTH (L), TOLERANCES:</p> <table style="font-size: small;"> <tr> <td>L ≤ 12 [305]</td> <td>±.1 [25]</td> <td>/-0</td> </tr> <tr> <td>12 [305] < L ≤ 60 [1524]</td> <td>±.2 [51]</td> <td>/-0</td> </tr> <tr> <td>60 [1524] < L ≤ 120 [3048]</td> <td>±.4 [102]</td> <td>/-0</td> </tr> <tr> <td>120 [3048] < L ≤ 300 [7620]</td> <td>±.6 [152]</td> <td>/-0</td> </tr> <tr> <td>300 [7620] < L</td> <td>±.5% []</td> <td>/-0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p> | .X = ±.2 | [.008] | FRACTIONS | .XX = ±.02 | [.51] | ±.1/32 | .XXX = ±.005 | [.13] | ANGLES ± 1° | L ≤ 12 [305] | ±.1 [25] | /-0 | 12 [305] < L ≤ 60 [1524] | ±.2 [51] | /-0 | 60 [1524] < L ≤ 120 [3048] | ±.4 [102] | /-0 | 120 [3048] < L ≤ 300 [7620] | ±.6 [152] | /-0 | 300 [7620] < L | ±.5% [] | /-0 | <p>PASTERNAK an INFINITE brand</p> <p>Pasternack Enterprises, Inc. P. O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com</p> | <p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.</p> <p>SHEET 1 OF 1</p> <p>SCALE N/A</p> |
| .X = ±.2 | [.008] | FRACTIONS | | | | | | | | | | | | | | | | | | | | | | | | |
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| SIZE A CAGE CODE 53919 DRAWN BY K.DANG | ITEM NO. PE3C7846 | REV A | | | | | | | | | | | | | | | | | | | | | | | | |