



TNC Male to TNC Male Flexible Cable 24 Inch  
Length Using RG174 Coax with HeatShrink

RF Cable Assemblies Technical Data Sheet

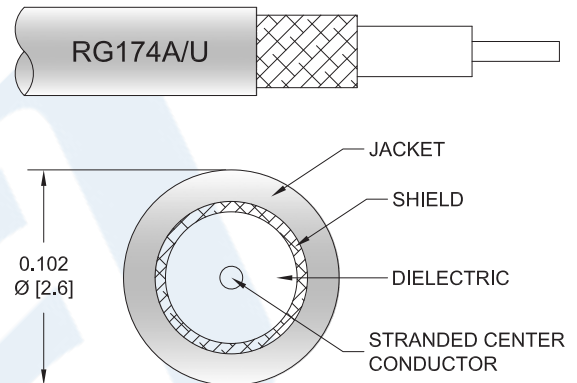
PE3C7891-24

**Configuration**

- Connector 1: TNC Male
- Connector 2: TNC Male
- Cable Type: RG174

**Features**

- Max Frequency 1 GHz
- 66% Phase Velocity
- PVC Jacket



**Applications**

- General Purpose
- Laboratory Use

**Description**

Pasternack's PE3C7891-24 TNC male to TNC male 24 inch cable using RG174 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 TNC to TNC cable assembly has a male to male gender configuration with 50 ohm flexible RG174 coax. The PE3C7891-24 TNC male to TNC male cable assembly operates to 1 GHz.

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: [TNC Male to TNC Male Flexible Cable 24 Inch Length Using RG174 Coax with HeatShrink PE3C7891-24](#)



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#### Electrical Specifications

| Description                          | Minimum | Typical        | Maximum | Units        |
|--------------------------------------|---------|----------------|---------|--------------|
| Frequency Range                      | DC      |                | 1,000   | MHz          |
| VSWR                                 |         |                | 1.4:1   |              |
| Velocity of Propagation              |         | 66             |         | %            |
| Capacitance                          |         | 31.08 [101.97] |         | pF/ft [pF/m] |
| Dielectric Withstanding Voltage (DC) |         |                | 1,000   | Vdc          |
| Input Power (Average)                |         |                | 17      | Watts        |

#### Specifications by Frequency

| Description           | F1   | F2   | F3   | F4   | F5    | Units |
|-----------------------|------|------|------|------|-------|-------|
| Frequency             | 50   | 100  | 250  | 500  | 1,000 | MHz   |
| Insertion Loss (Typ.) | 0.14 | 0.24 | 0.38 | 0.57 | 0.84  | dB    |

#### Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax and connectors used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1\*SQRT(FGHz) dB per connector loss.

#### Mechanical Specifications

##### Cable Assembly

|          |                   |
|----------|-------------------|
| Length*  | 24 in [609.6 mm]  |
| Diameter | 0.6 in [15.24 mm] |

##### Cable

|                                      |                     |
|--------------------------------------|---------------------|
| Cable Type                           | RG174               |
| Impedance                            | 50 Ohms             |
| Inner Conductor Type                 | Stranded            |
| Inner Conductor Material and Plating | Copper Clad Steel   |
| Dielectric Type                      | PE                  |
| Number of Shields                    | 1                   |
| Shield Layer 1                       | Tinned Copper Braid |
| Jacket Material                      | PVC, Black          |
| Jacket Diameter                      | 0.11 in [2.79 mm]   |

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**Connectors**

| Description                        | Connector 1            | Connector 2            |
|------------------------------------|------------------------|------------------------|
| Type                               | TNC Male               | TNC Male               |
| Impedance                          | 50 Ohms                | 50 Ohms                |
| Contact Material and Plating       | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Contact Plating Specification      | 15 µin                 | 15 µin                 |
| Dielectric Type                    | Teflon                 | Teflon                 |
| Body Material and Plating          | Brass, Nickel          | Brass, Nickel          |
| Body Plating Specification         | 100 µin                | 100 µin                |
| Coupling Nut Material and Plating  | Brass, Nickel          | Brass, Nickel          |
| Coupling Nut Plating Specification | 100 µin                | 100 µin                |

**Environmental Specifications**

**Temperature**

Operating Range

-40 to +80 deg C

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

**Plotted and Other Data**

Notes:

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## TNC Male to TNC Male Flexible Cable 24 Inch Length Using RG174 Coax with HeatShrink

### RF Cable Assemblies Technical Data Sheet

PE3C7891-24

#### How to Order

Part Number Configuration:

**PE3C7891**

- **xx**

**uu**

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

Example: PE3C7891-12 = 12 inches long cable  
PE3C7891-100cm = 100 cm long cable

TNC Male to TNC Male Flexible Cable 24 Inch Length Using RG174 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: [TNC Male to TNC Male Flexible Cable 24 Inch Length Using RG174 Coax with HeatShrink PE3C7891-24](#)

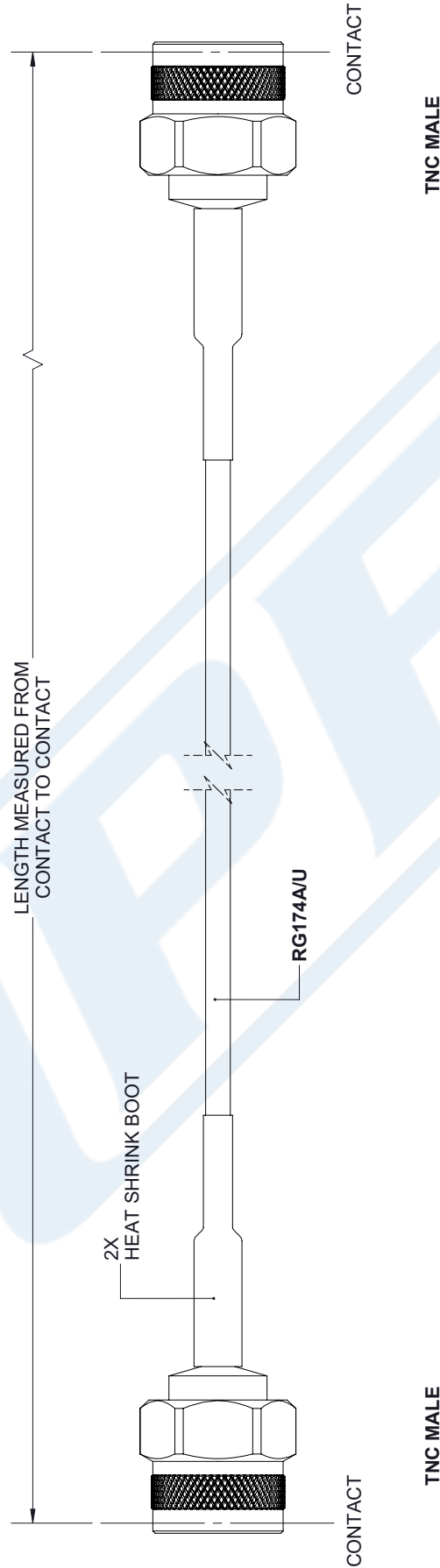
URL: <https://www.pasternack.com/tnc-male-tnc-male-rg174au-cable-assembly-pe3c7891-24-p.aspx>

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.

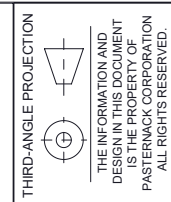
# PE3C7891-24 CAD Drawing

TNC Male to TNC Male Flexible Cable 24 Inch Length Using RG174 Coax with HeatShrink

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 4/14/2021 | SELLIS   |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |             |          |           |             |       |        |               |       |             |              |                |                          |                |                            |                 |                             |                 |                |              |                                                                                                                                                                                                                                                                  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|----------|-----------|-------------|-------|--------|---------------|-------|-------------|--------------|----------------|--------------------------|----------------|----------------------------|-----------------|-----------------------------|-----------------|----------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>UNLESS OTHERWISE SPECIFIED<br/>LEADING DIMENSIONS ARE INCHES<br/>DIMENSIONS IN [ ] ARE MILLIMETERS</p> <p>TOLERANCES:</p> <table border="0"> <tr> <td>.X = ± .2</td> <td>[.08]</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 border="0"> <tr> <td>L ≤ 12 [305]</td> <td>= +1 [25] / -0</td> </tr> <tr> <td>12 [305] &lt; L ≤ 60 [1524]</td> <td>= +2 [51] / -0</td> </tr> <tr> <td>60 [1524] &lt; L ≤ 120 [3048]</td> <td>= +4 [102] / -0</td> </tr> <tr> <td>120 [3048] &lt; L ≤ 300 [7620]</td> <td>= +6 [152] / -0</td> </tr> <tr> <td>300 [7620] &lt; L</td> <td>= +5% L / -0</td> </tr> </table> <p>ALL DIMENSIONS SHOWN<br/>ARE FOR REFERENCE ONLY.</p> |                 | .X = ± .2   | [.08]    | 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% L / -0 | <p><b>PE PASTERNAK®</b><br/>an INFINITI® brand</p> <p>Pasternack Enterprises, Inc.<br/>P.O. Box 16759, Irvine, CA 92623.<br/>Phone: 1.949.261.1920   1.866.727.8376<br/>Fax: 1.949.261.7451<br/>Website: www.pasternack.com<br/>E-mail: sales@pasternack.com</p> |  |
| .X = ± .2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | [.08]           | 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% L / -0    |             |          |           |             |       |        |               |       |             |              |                |                          |                |                            |                 |                             |                 |                |              |                                                                                                                                                                                                                                                                  |  |
| SIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CAGE CODE       | DRAWN BY    | ITEM NO. |           |             |       |        |               |       |             |              |                |                          |                |                            |                 |                             |                 |                |              |                                                                                                                                                                                                                                                                  |  |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 53919           | K.DANG      | PE3C7891 |           |             |       |        |               |       |             |              |                |                          |                |                            |                 |                             |                 |                |              |                                                                                                                                                                                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |             | REV      |           |             |       |        |               |       |             |              |                |                          |                |                            |                 |                             |                 |                |              |                                                                                                                                                                                                                                                                  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |             | A        |           |             |       |        |               |       |             |              |                |                          |                |                            |                 |                             |                 |                |              |                                                                                                                                                                                                                                                                  |  |



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