



## TNC Male to N Male Low Loss Cable Using PE-P142LL Coax, RoHS

### TECHNICAL DATA SHEET

PE349

The PE340's high performance test cable's 0.195 inch diameter and 83% phase velocity offer very low loss performance up to 18 GHz. The durable stainless steel connectors and FEP jacket provide a cost effective design ideal for test environments where a rugged cable assembly is required. The series is offered with Type N, TNC, and SMA connectors all rated to 18 GHz. A heavy Duty boot provides improved strain relief and adds to the durability of the cable assemblies. These cable assemblies are built using a double shielded flexible cable, providing excellent shielding effectiveness of greater than 95 dB. All PE340 cable assemblies are 100% Continuity, Hi-POT, and RF tested to published specifications. Custom lengths are built to order and shipped same day.

- 83% Velocity of Propagation
- Shielding effectiveness > 95 dB
- Maximum VSWR is < 1.40:1 to 18 GHz
- Minimum Bend Radius of 1.5 inches
- Operating Temperature range of -55 to +125 °C
- ROHS and REACH Compliant
- Same day shipment of custom lengths
- 100% Continuity, Hi-Pot, and RF tested

#### Configuration

|             |           |
|-------------|-----------|
| Connector 1 | TNC Male  |
| Connector 2 | N Male    |
| Cable Type  | PE-P142LL |

#### Electrical Specifications

|                         |              |
|-------------------------|--------------|
| Frequency Range         | DC to 18 GHz |
| Impedance               | 50 Ohms      |
| Maximum VSWR            | 1.4:1        |
| Velocity of Propagation | 83 %         |
| RF Shielding            | 95 dB        |

#### Typical Performance by Frequency

##### Frequency 1

|                        |                     |
|------------------------|---------------------|
| Frequency              | 400 MHz             |
| Insertion Loss         | 0 dB/ft [0.15 dB/m] |
| Power Handling, KWatts | 1.2                 |

##### Frequency 2

|                |                         |
|----------------|-------------------------|
| Frequency      | 1000 MHz                |
| Insertion Loss | 0.072 dB/ft [0.24 dB/m] |
| Power Handling | 700 Watts               |

##### Frequency 3

|                |                         |
|----------------|-------------------------|
| Frequency      | 2 GHz                   |
| Insertion Loss | 0.103 dB/ft [0.34 dB/m] |
| Power Handling | 500 Watts               |

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 N Male Low Loss Cable Using PE-P142LL Coax, RoHS PE349](#)



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**Frequency 4**

|                |                         |
|----------------|-------------------------|
| Frequency      | 3 GHz                   |
| Insertion Loss | 0.127 dB/ft [0.42 dB/m] |
| Power Handling | 400 Watts               |

**Frequency 5**

|                |                         |
|----------------|-------------------------|
| Frequency      | 5 GHz                   |
| Insertion Loss | 0.166 dB/ft [0.54 dB/m] |
| Power Handling | 300 Watts               |

**Frequency 6**

|                |                        |
|----------------|------------------------|
| Frequency      | 10 GHz                 |
| Insertion Loss | 0.24 dB/ft [0.79 dB/m] |
| Power Handling | 220 Watts              |

**Frequency 7**

|                |                        |
|----------------|------------------------|
| Frequency      | 18 GHz                 |
| Insertion Loss | 0.33 dB/ft [1.08 dB/m] |
| Power Handling | 160 Watts              |

**Mechanical Specifications**

**Temperature**

|                             |                   |
|-----------------------------|-------------------|
| Temperature Operating Range | -55 to +125 deg C |
|-----------------------------|-------------------|

**Size**

|                              |                      |
|------------------------------|----------------------|
| Diameter                     | 0.822 in [20.88 mm]  |
| Weight                       | 0.252 lbs [114.31 g] |
| Repeated Minimum Bend Radius | 1 in [25.4 mm]       |

**Cable**

|                       |                    |
|-----------------------|--------------------|
| Cable Type            | PE-P142LL          |
| Inner Conductor Type  | Solid              |
| Cable Inner Conductor | Copper, Silver     |
| No of Shields         | 3                  |
| Dielectric Type       | PTFE               |
| Jacket Material       | FEP                |
| Jacket Diameter       | 0.195 in [4.95 mm] |

**Connector 1**

|                                       |                            |
|---------------------------------------|----------------------------|
| Type                                  | TNC Male                   |
| Connector 1 Specification             | MIL-STD-348, Figure 313-3  |
| Configuration                         | Straight                   |
| Inner Conductor Material and Plating  | Beryllium Copper, Gold     |
| Inner Conductor Plating Specification | ASTM-B488, 50µ In. Minimum |
| Outer Conductor Material and Plating  | Passivated Stainless Steel |
| Outer Conductor Plating Specification | SAE-AMS-2700               |

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Coupling Nut Material and Plating  
Coupling Nut Plating Specification  
Hex Size  
Body Material and Plating  
Body Plating Specification  
Dielectric Type

Passivated Stainless Steel  
SAE-AMS-2700  
9/16 Inch  
Passivated Stainless Steel  
SAE-AMS-2700  
PTFE

**Connector 2**

Type  
Configuration  
Inner Conductor Material and Plating  
Inner Conductor Plating Specification  
Outer Conductor Material and Plating  
Outer Conductor Plating Specification  
Coupling Nut Material and Plating  
Coupling Nut Plating Specification  
Hex Size  
Torque  
Body Material and Plating  
Dielectric Type

N Male  
Straight  
Beryllium Copper, Gold  
ASTM-B488, 50μ Inch.  
Passivated Stainless Steel  
SAE-AMS-2700  
Passivated Stainless Steel  
SAE-AMS-2700  
3/4 Inch  
14 in-lbs [1.58 Nm]  
Passivated Stainless Steel  
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

TNC Male to N Male Low Loss Cable Using PE-P142LL 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.

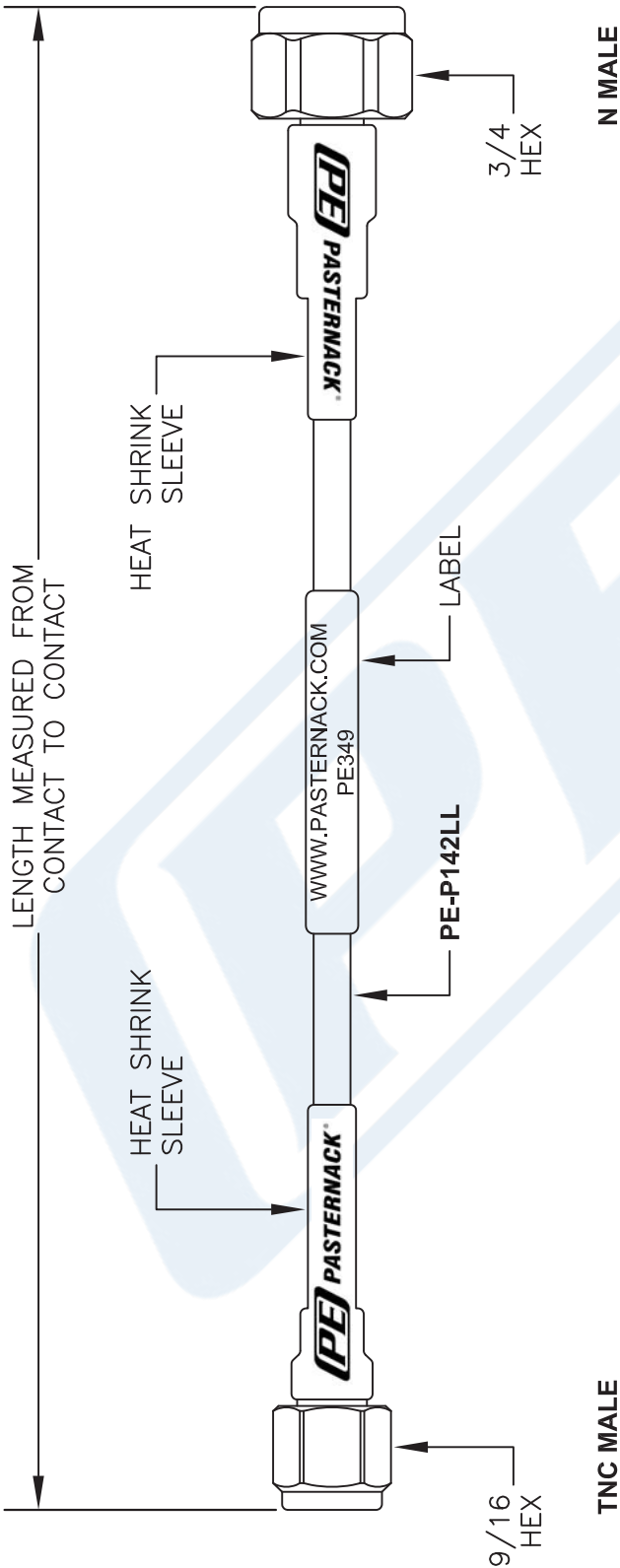
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URL: <http://www.pasternack.com/tnc-male-n-male-pe-p142ll-cable-assembly-pe349-p.aspx>

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.

PE349 CAD Drawing

TNC Male to N Male Low Loss Cable Using PE-P142LL Coax, RoHS



NOTE: LABEL FOR CABLE LENGTHS 48" OR SHORTER TO BE CENTERED. 48" OR LONGER WILL BE 12" AWAY FROM CONNECTOR.

| How To Order  |                |               |                  |               |                       |
|---|----------------|---------------|------------------|---------------|-----------------------|
| <div>Part Number Configuration</div> <div>PE3 <div>zzz</div> <div>yy</div> - <div>xx</div> <div>uu</div></div> <div>00 - 99999</div> <div>LF = RoHS Compliant<br/>&lt; Blank &gt; = Standard</div> <div>Note: LF applies only to RF cables</div> <div>CM = Centimeters<br/>&lt; Blank &gt; = Inches</div> <div>Length</div> | Examples       | Part # Ext.   | Length In Inches | Part # Ext.   | Length In Centimeters |
|   | PE3000LF-100   | -12           | 12"              | -25CM         | 25Cm                  |
|   | PE3000-100     | -24           | 24"              | -50CM         | 50Cm                  |
|   | PE3000LF-100CM | -36           | 36"              | -75CM         | 75Cm                  |
|   | PE3000-100CM   | -48           | 48"              | -100CM        | 100Cm                 |
|   |                | -60           | 60"              | -125CM        | 125Cm                 |
|   | -xx            | Custom Length | -xxCM            | Custom Length |                       |

- 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  
**PE349**

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Pasternack Enterprises, Inc.

THE ENGINEER'S RF SOURCE



FSCM NO. 53919

CAD FILE 052914

SCALE N/A

SIZE A

2233