

SMA Male to TNC Female Bulkhead Low Loss Cable 200 cm Length Using PE-P142LL Coax, RoHS

## **RF Cable Assemblies Technical Data Sheet**

#### Configuration

- Connector 1: SMA Male
- Connector 2: TNC Female Bulkhead
- · Cable Type: PE-P142LL

#### Features

- Max Frequency 18 GHz
- Shielding Effectivity > 95 dB
- · 83% Phase Velocity
- Triple Shielded
- FEP Jacket 83% Velocity of Propagation
- Maximum VSWR is < 1.40:1 to 18 GHz
- · Minimum Bend Radius of 1 inch
- Operating Temperature range of -55 to +125°C
- · ROHS and REACH Compliant
- · Same day shipment of custom lengths

### **Applications**

General Purpose

Laboratory Use

#### Description

The PE3C2449 series 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 PE3C2449 cable assemblies are 100% Continuity, Hi-POT, and RF tested to published specifications. Custom lengths are built to order and shipped same day

0.195 (FEP) (Chainless Steel)

#### **Electrical Specifications**

| Description             | Minimum | Typical    | Maximum | Units        |
|-------------------------|---------|------------|---------|--------------|
| Frequency Range         | DC      |            | 18      | GHz          |
| VSWR                    |         |            | 1.4:1   |              |
| Return Loss             |         |            | 15.56   | dB           |
| Insertion Loss          |         |            | 3       | dB           |
| Velocity of Propagation |         | 83         |         | %            |
| RF Shielding            | 95      |            |         | dB           |
| Capacitance             |         | 25 [82.02] |         | pF/ft [pF/m] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SMA Male to TNC Female Bulkhead Low Loss Cable 200 cm Length Using PE-P142LL Coax, RoHS PE3C2449-200CM

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

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OUTER SHIELD

MIDDLE SHIELD

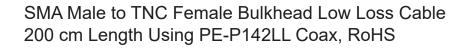
DIELECTRIC

**INNER SHIELD** 

SOLID CENTER

CONDUCTOR





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### PE3C2449-200CM

#### **Specifications by Frequency**

| Description           | F1   | F2   | F3   | F4   | F5   | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency             | 1    | 2    | 4.5  | 9    | 18   | GHz   |
| Insertion Loss (Max.) | 1.1  | 1.3  | 1.7  | 2.3  | 3    | dB    |
| Insertion Loss (Typ.) | 0.88 | 1.07 | 1.46 | 1.92 | 2.57 | dB    |
| Power Handling (Max.) | 820  | 600  | 350  | 250  | 175  | W     |

#### Mechanical Specifications

Cable Assembly Length\* Diameter

#### Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Number of Shields Shield Layer 1 Shield Layer 2 Shield Layer 3 Jacket Material Jacket Diameter

One Time Minimum Bend Radius

78.74 in [200 cm] 0.625 in [15.88 mm]

PE-P142LL 50 Ohms Solid Copper, Silver PTFE 3 Silver Plated Copper Tape Aluminum Polyester Silver Plated Copper Wire FEP, Green 0.195 in [4.95 mm]

1 in [25.4 mm]

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### PE3C2449-200CM

#### Connectors

| Description                           | Connector 1                | Connector 2<br>TNC Female Bulkhead |  |
|---------------------------------------|----------------------------|------------------------------------|--|
| Туре                                  | SMA Male                   |                                    |  |
| Specification                         | MIL-STD-348                | MIL-STD-348                        |  |
| Impedance                             | 50 Ohms                    | 50 Ohms                            |  |
| Contact Material and Plating          | Beryllium Copper, Gold     | Beryllium Copper, Gold             |  |
| Contact Plating Specification         | ASTM-B488 50µ In. Min      | ASTM-B488, 50µ In. Min             |  |
| Dielectric Type                       | PTFE                       | PEI                                |  |
| Outer Conductor Material and Plating  |                            | Passivated Stainless Steel         |  |
| Outer Conductor Plating Specification |                            | SAE-AMS-2700                       |  |
| Body Material and Plating             | Passivated Stainless Steel | Passivated Stainless Steel         |  |
| Body Plating Specification            | SAE-AMS-2700               | SAE-AMS-2700                       |  |
| Coupling Nut Material and Plating     | Passivated Stainless Steel |                                    |  |
| Coupling Nut Plating Specification    | SAE-AMS-2700               |                                    |  |
| Hex Size                              | 5/16 Inch                  |                                    |  |
| Torque                                | 8 in-lbs [0.9 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

-55 to +125 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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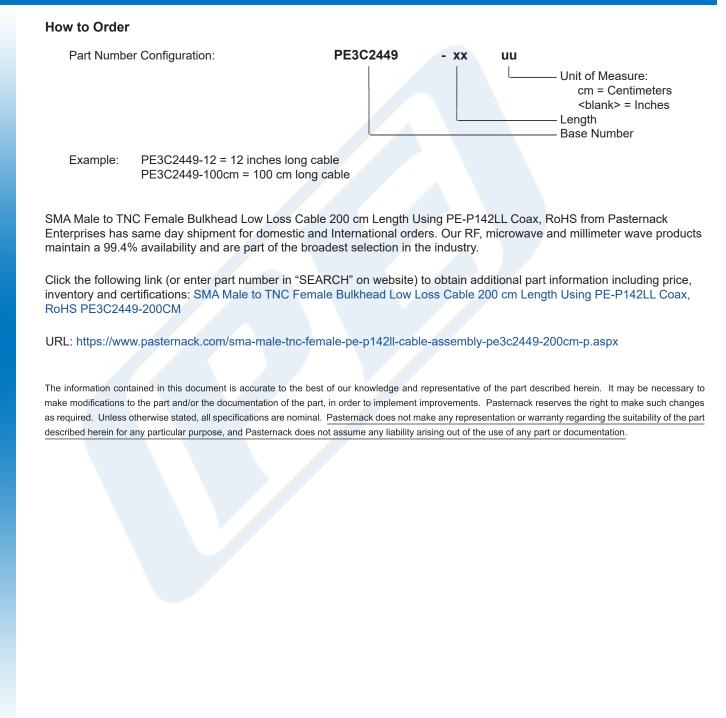




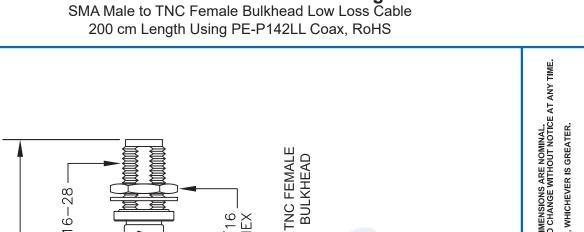
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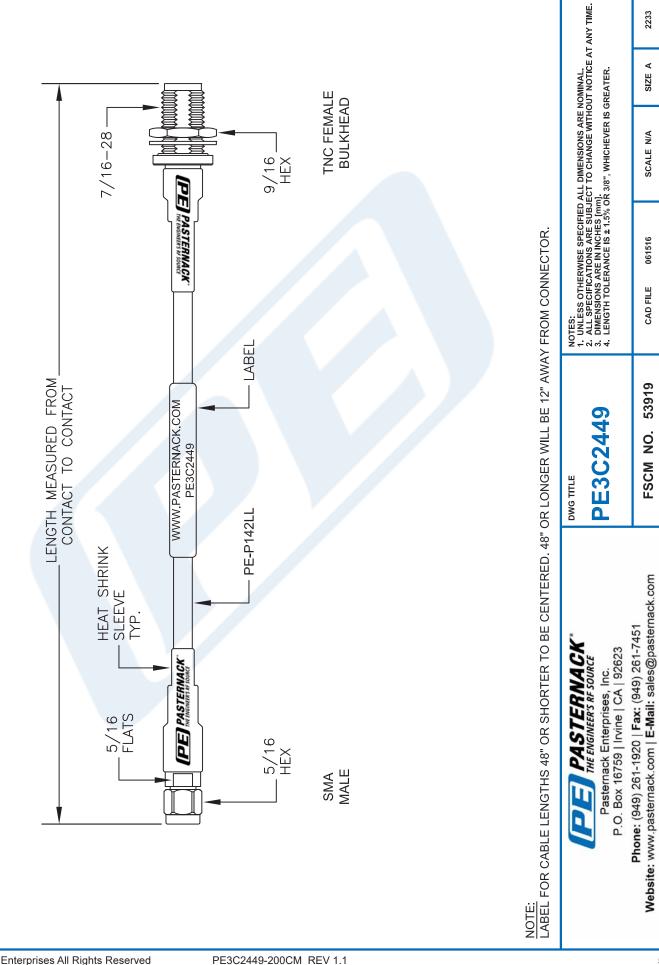
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# PE3C2449-200CM CAD Drawing

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