

Temperature Conditioned TNC Male to N Female
Bulkhead Low Loss Cable Using PE-P300LL Coax



RF Cable Assemblies Technical Data Sheet

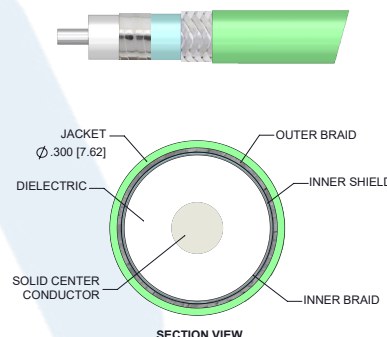
PE3M0241

Configuration

- Connector 1: TNC Male
- Connector 2: N Female Bulkhead
- Cable Type: PE-P300LL

Features

- Max Frequency 18 GHz
- 83% Phase Velocity
- Triple Shielded
- FEP Jacket
- Thermally Pre-Conditioned Cable
- Captivated Stainless Steel Connectors
- Expanded PTFE dielectric
- J-STD-Soldering
- Lot Traceability
- Test Report
- Ship same day



Applications

- General Purpose
- Laboratory Use
- High Reliability
- Extreme Temperatures
- Military Electronics
- Avionics
- IFF
- SATCOM
- ECM

Description

Pasternack's temperature conditioned low loss cable assemblies are part of our full line of reliable RF components available for shipment same day. These commercial-off-the-shelf (COTS), RF / microwave cable assemblies are designed and processed with high reliability in mind. Captivated stainless steel cable assembly connectors and thermally pre-conditioned triple-shielded coaxial cable are assembled using J-STD soldering processes and WHMA-A-620 workmanship criteria. The combination of stable materials, processing and acceptance testing work together to create a dependable cable assembly for applications where performance over time is important or the cost of failure is high. Each finished COTS temperature conditioned low loss cable assembly is traceable to its component lots and a test report is available for every lot produced.

Our highly reliable low loss conditioned RF cable assembly datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave cable assemblies allow designers to configure and customize their signal connections however they like. Whether the need is to provide reliable stable connections or fielding dependable RF cables, Pasternack has the right cable assemblies for the job. Pasternack can also expertly build your custom cable assemblies for you and ship them same day.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Temperature Conditioned TNC Male to N Female Bulkhead Low Loss Cable Using PE-P300LL Coax PE3M0241](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.37:1	
Velocity of Propagation		83		%
Capacitance		25 [82.02]		pF/ft [pF/m]
Dielectric Withstanding Voltage (AC)			1,500	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Max.)	0.051 0.17	0.073 0.24	0.112 0.37	0.17 0.56	0.271 0.89	dB

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as $0.04 \cdot \sqrt{\text{FGHz}}$ dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.26 lbs [117.93 g]

Cable

Cable Type PE-P300LL
Impedance 50 Ohms
Inner Conductor Type Solid
Inner Conductor Material and Plating Copper, Silver
Dielectric Type Expanded PTFE Tape
Number of Shields 3
Shield Layer 1 Silver Plated Copper Tape
Shield Layer 2 Aluminum Polyester
Shield Layer 3 Silver Plated Copper Wire
Jacket Material FEP
Jacket Diameter 0.3 in [7.62 mm]

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Connectors

Description	Connector 1	Connector 2
Type	TNC Male	N Female Bulkhead
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
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	9/16 inch	
Seal Gasket Material	Silicone Rubber	

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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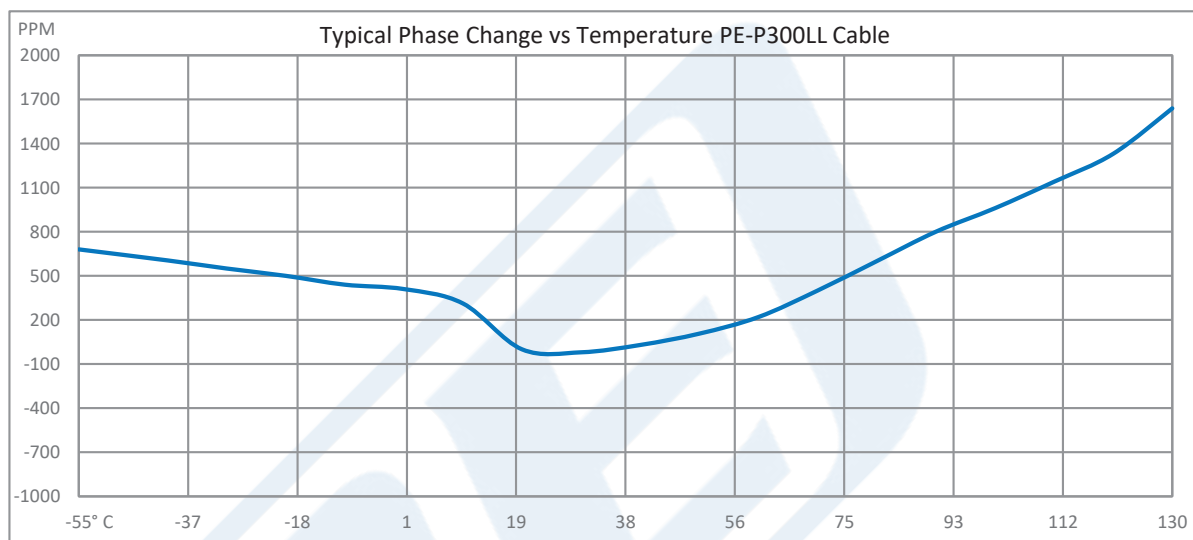
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Typical Performance Data



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How to Order

Part Number Configuration:

PE3M0241

- xx

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

Example: PE3M0241-12 = 12 inches long cable
PE3M0241-100cm = 100 cm long cable

Temperature Conditioned TNC Male to N Female Bulkhead Low Loss Cable Using PE-P300LL 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Temperature Conditioned TNC Male to N Female Bulkhead Low Loss Cable Using PE-P300LL Coax PE3M0241](#)

URL: <https://www.pasternack.com/temperature-conditioned-tnc-male-n-female-pe-p300ll-cable-assembly-pe3m0241-p.aspx>

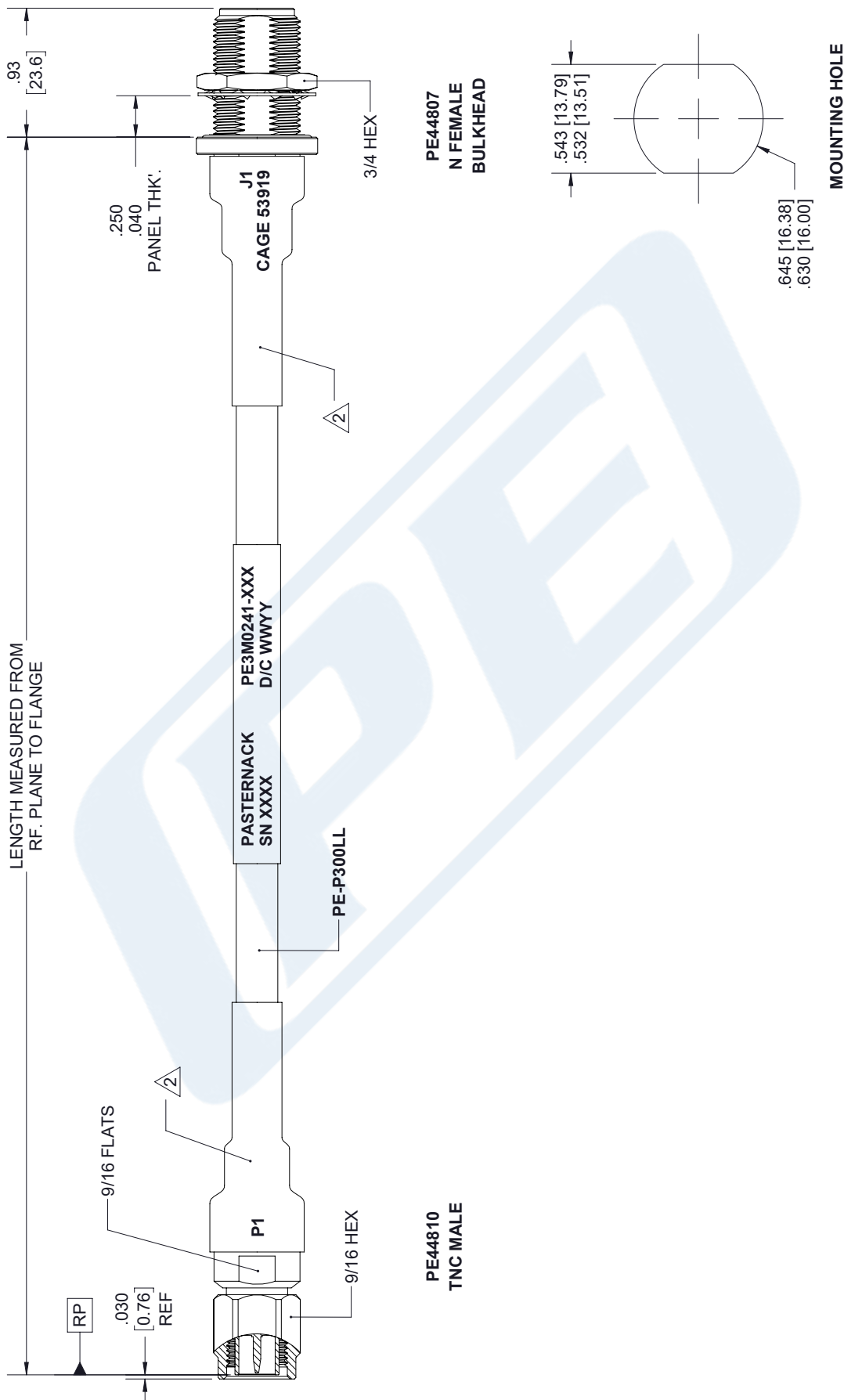
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

PE3M0241 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	02/08/19	D.BIRCH



NOTES:

- ALL BLACK HEAT SHRINK WITH WHITE MARKINGS.
- TOP LAYER: SUMITUBE W3B2 (4X) - SIZE 24/6.
BOTTOM LAYER: M23053/4-304-0.

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS			
TOLERANCES:			
X±.2	[5.08]	FRACTIONS	
XX±.01	[.25]		±132
XXX±.005	[.13]	ANGLES ± 1°	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.			
THIRD-ANGLE PROJECTION			

PE PASTERNAK an INFINITE brand Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 www.pasternack.com e-mail: sales@pasternack.com			
THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.	SHEET 1 OF 1	SCALE N/A	REV A
SIZE A	CAGE 53919	DRAWN BY K.DANG	PART NUMBER PE3M0241

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