

# **RF Cable Assemblies Technical Data Sheet**

N Female Bulkhead to TNC Male Right Angle Low Loss

### PE3C5271-24

OUTER BRAID

NNER SHIELD

INNER BRAID

### Configuration

- Connector 1: N Female Bulkhead
- Connector 2: TNC Male Right Angle
- Cable Type: PE-P160LL

Cable 24 Inch Length Using PE-P160LL Coax

### Features

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 82.5% Phase Velocity
- Triple Shielded
- FEP Jacket
- 0.8 inch Minimum Bend Radius
- Max VSWR of 1.35:1 to 18 GHz
- Same Day Shipment of Custom Lengths
- · RoHS and REACH Compliant

### **Applications**

- General Purpose
- Laboratory Use

- Automated Test Systems
- Airborne Systems

Phased Arrays

SECTION VIEW

Ø.160 [4.06]

DIELECTRIC

SOLID CENTER

• EW and Countermeasures

### Description

The PE3C5271-24 N Female Bulkhead to TNC Male Right Angle Low Loss cable assembly is part of a series of cable assemblies that use our PE-P160LL double shielded coax. The PE-P160LL based cable assemblies are available in a variety of connector configurations operating to a maximum frequency for this cable series of 18 GHz. The PE3C5271-24 high performance cable assembly with a 82.5% phase velocity offers very low loss performance in a 0.16 inch coax up to 18 GHz. The shielding effectiveness of the PE-P160LL double shielded coax is greater than 95 dB. The durable stainless steel connectors and FEP cable jacket provide a cost effective design ideal for test environments where a rugged cable assembly is required. A heavy duty heat shrink booting provides improved strain relief and adds to the durability of the cable assembly.

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: N Female Bulkhead to TNC Male Right Angle Low Loss Cable 24 Inch Length Using PE-P160LL Coax PE3C5271-24

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





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#### **Electrical Specifications**

Description	า	Minimu	um	Typical	Maximum	Units
Frequency Range		DC			18	GHz
VSWR					1.35:1	
Velocity of Propagation				82.5		%
RF Shielding		90				dB
Capacitance				25 [82.02]		pF/ft [pF/m]
Specifications by Fre	equency					
Description	F1	F2	F3	F4	F5	Units
Frequency	1	2	4.5	9	18	GHz
Insertion Loss (Typ.)	0.34	0.48	0.73	1.05	1.51	dB

#### **Electrical Specification Notes:**

The Insertion Loss data above is based on the performance specifications of the coax cable used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.04\*SQRT(F(GHz))dB maximum for the straight connector and 0.10\*SQRT(F(GHz))dB maximum for the right angle connector.

#### **Mechanical Specifications**

Cable Assembly Length\*

#### 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

Repeated Minimum Bend Radius

24 in [609.6 mm]

PE-P160LL 50 Ohms Solid Copper, Silver Expanded PTFE Tape 3 Silver Plated Copper Aluminum Polyester Silver Plated Copper FEP 0.16 in [4.06 mm]

0.8 in [20.32 mm]

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#### Connectors

Description	Connector 1	Connector 2 TNC Male Right Angle	
Туре	N Female Bulkhead		
Impedance	50 Ohms	50 Ohms	
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold	
Contact Plating Specification	ASTM-B488	ASTM-B488	
Dielectric Type	PTFE	PTFE	
Outer Conductor Material and Plating	Passivated Stainless Steel		
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel	
Coupling Nut Material and Plating		Passivated Stainless Steel	

### **Environmental Specifications**

Temperature Operating Range

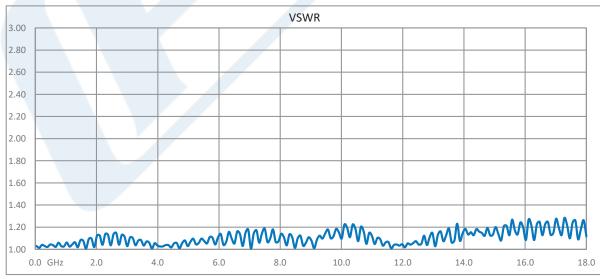
-55 to +165 deg C

Compliance Certifications (see product page for current document)

### Plotted and Other Data

Notes:

#### Typical Performance Data



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0.00 -0.50 -1.00 -1.50

-2.00 -2.50 -3.00 -3.50 -4.00 -4.50 -5.00

0.00

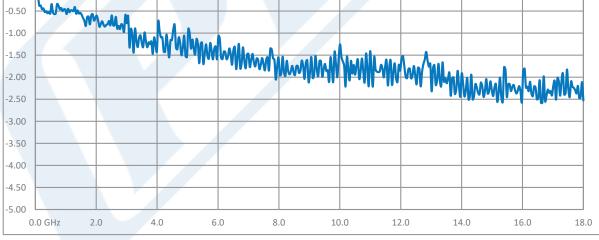


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INSERTION LOSS



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### PE3C5271-24

# How to Order PE3C5271 Part Number Configuration: - XX uu Unit of Measure: cm = Centimeters <blank> = Inches Length Base Number Example: PE3C5271-12 = 12 inches long cable PE3C5271-100cm = 100 cm long cable N Female Bulkhead to TNC Male Right Angle Low Loss Cable 24 Inch Length Using PE-P160LL 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: N Female Bulkhead to TNC Male Right Angle Low Loss Cable 24 Inch Length Using PE-P160LL Coax PE3C5271-24 URL: https://www.pasternack.com/n-female-tnc-male-pe-p160II-cable-assembly-pe3c5271-24-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.

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PE3C5271-24 CAD Drawing N Female Bulkhead to TNC Male Right Angle Low Loss

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