



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

### Configuration

- Connector 1: TNC Male
- Connector 2: TNC Male
- Cable Type: PE-141FLEX

#### **Features**

- Max Frequency 18 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Design operates to 18 GHz
- Shielding effectivity > 90dB
- One time minimum bend radius: 0.4 inch
- Typical TNC VSWR 1.20:1 to 18 GHz

### **Applications**

- General Purpose
- Laboratory Use
- High Performance RF equipment interconnect
- Flexible in cabinet or in the rack requirements
- General purpose lighter duty lab use

ATTA

PE-141FLEX

0.163

Ø [4.1]

Inside the box RF routing

#### Description

These new high performance flexible cables are made using our PE-141FLEX coax and our new low profile connectors. The high performance flexible design is well suited for connecting RF devices in rack-mount systems, inside RF equipment and for general lab hookup where a more expensive test cable is not required. These cables are similar to the PE30X series which have retractable coupling nuts and thick wall SMA connectors. The heavier duty PE35X test series cables have similar performance, but include a heavy duty strain relief mechanism and extra booting material as well as a thick wall SMA connector to increase the ruggedness of the PE35X cables for use in more demanding test environments.

PE-141FLEX is a flexible cable alternate to Semi Rigid coax and has a solid PTFE resulting in a 69.5% phase velocity. The smooth wall formed by the Braid over Spiral Ribbon design allows for a flexible cable that has similar performance to a solid wall 141 Semi Rigid (RG402) cable.

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 Cable 24 Inch Length Using PE-141FLEX Coax, LF Solder PE3CA1043-24

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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### PE3CA1043-24

**OUTER SHIELD** 

**INNER SHIELD** 

DIELECTRIC

SOLID CENTER

CONDUCTOR

JACKET





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#### **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units GHz	
Frequency Range	DC		18		
VSWR			1.4:1		
Return Loss			15.56	dB	
Velocity of Propagation		69.5		%	
RF Shielding	90			dB	
Group Delay		1.44 [4.72]		ns/ft [ns/m]	
Capacitance		29.4 [96.46]		pF/ft [pF/m]	
Operating Voltage (AC)			500	Vrms	

#### **Specifications by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency	6	18				GHz
Insertion Loss (Max.)	0.995	1.87				dB
VSWR (Max.)	1.25:1	1.4:1				
Power Handling (Max.)	150	88				W

#### **Mechanical Specifications**

#### Cable Assembly Length\*

Weight

#### Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Number of Shields Shield Layer 1 Shield Layer 2 Outer Conductor 1 Material and Plating Outer Conductor 2 Material and Plating Jacket Material Jacket Diameter 24 in [609.6 mm] 0.136 lbs [61.69 g]

PE-141FLEX 50 Ohms Solid Copper Clad Steel, Silver PTFE 2 Silver Plated Copper Tape Silver Plated Copper Braid Silver Plated Copper Tape Silver Plated Copper Braid FEP 0.163 in [4.14 mm]

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One Time Minimum Bend Radius Repeated Minimum Bend Radius

0.4 in [10.16 mm] 1.58 in [40.13 mm]

#### Connectors

Description	Connector 1	Connector 2	
Туре	TNC Male	TNC Male	
Impedance	50 Ohms	50 Ohms	
Mating Cycles	500	500	
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold	
Dielectric Type	PTFE	PTFE	
Body Material and Plating	Brass, Nickel	Brass, Nickel	
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel	
Hex Size	9/16 Inch	9/16 Inch	

#### Mechanical Specification Notes:

\*All cable assemblies have a length tolerance of 1.5% or  $\pm$  3/8", whichever is greater.

#### **Environmental Specifications**

Temperature **Operating Range** 

-40 to +150 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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## PE3CA1043-24



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

**Typical Performance Data PE3CA1043-24 VSWR** 1.5 1.4 ---Maximum Typical 1.3 VSWR. dB 1.2 1.1 6.00 12.00 1.50 3.00 4.50 7.50 9.00 10.50 13.50 15.00 16.50 18.00 Frequency (GHz) PE3CA1043-24 Insertion Loss (dB) 1 0 **dB** -1 -2 ---Maximum Typical -3 2.00 4.00 6.00 8.00 10.00 12.00 14.00 16.00 18.00 Frequency (GHz)

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 Cable 24 Inch Length Using PE-141FLEX Coax, LF Solder PE3CA1043-24

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## PE3CA1043-24



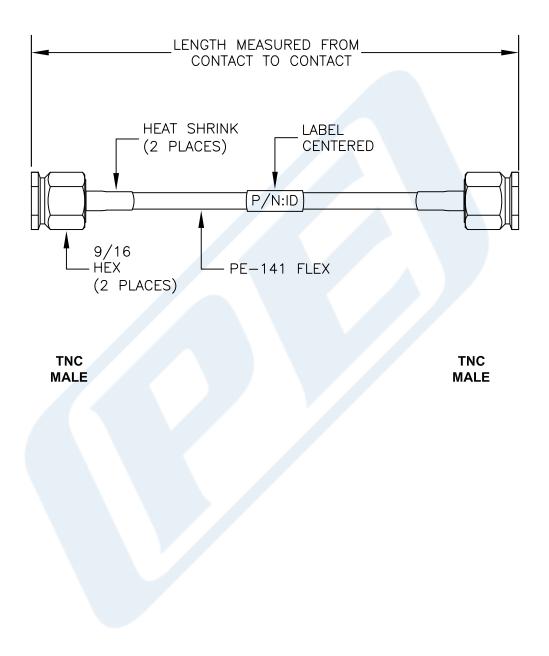


## **RF Cable Assemblies Technical Data Sheet**

## PE3CA1043-24

## How to Order **PE3CA1043** Part Number Configuration: - XX uu - Unit of Measure: cm = Centimeters <blank> = Inches Length **Base Number** Example: PE3CA1043-12 = 12 inches long cable PE3CA1043-100cm = 100 cm long cable TNC Male to TNC Male Cable 24 Inch Length Using PE-141FLEX Coax, LF Solder 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 Cable 24 Inch Length Using PE-141FLEX Coax, LF Solder PE3CA1043-24 URL: https://www.pasternack.com/tnc-male-tnc-male-pe-141flex-cable-assembly-pe3ca1043-24-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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<b>PE</b> PASTERNACK <sup>*</sup> THE ENGINEER'S RF SOURCE	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 ± 1.5% OR 3/8", WHICHEVER IS GREATER.					
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