



VNA Ruggedized Test Cable N Male to N Female 18GHz, RoHS

RF Cable Assemblies - PE3VNA1804

Configuration

- Connector 1: N Male
- Connector 2: N Female
- Cable Type: PE-VNA-R

Features

- Designed for use as VNA Test Port extenders
- Excellent VSWR and Insertion Loss
- Stainless Steel Armoring provides crush resistance
- Non Conductive protective outer sleeve
- Torsion resistant connector heads
- Rugged connector interface with machined strain relief collar
- Excellent Amplitude and Phase stability with flexure
- Each Serialized assembly comes with test data
- In stock and ready to ship

Applications

- Vector Network Analyzer Test port extenders
- Precise Bench top testing
- Lab and Production testing

Description

Pasternack ruggedized VNA Test Cables are designed to provide customers with repeatable accurate VNA measurements. These Test cables have excellent electrical properties including low Insertion Loss, low VSWR and phase stability of +/- 2° with flexure. Torsion resistant connector heads are directly attached to stainless steel conduit style armoring providing a rugged design for up to 5,000 mattings cycles with proper care. The cable armoring enhances amplitude and phase stability by preventing stress due to over bending while maintaining the flexibility required for testing in a lab environment. When used with the appropriate calibration KIT these test cables effectively extend the test port of the VNA allowing for accurate measurements of devices that cannot be directly connected to a Network Analyzer test port.

Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|------------------------------|---------|--------------|---------|--------------|
| Frequency Range | DC | | 18 | GHz |
| VSWR | | | 1.25:1 | |
| Velocity of Propagation | | 70 | | % |
| RF Shielding | 90 | | | dB |
| Capacitance | | 29.4 [96.46] | | pF/ft [pF/m] |
| Phase Stability with Flexure | | ±2 | | Degrees |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Cable Using Ruggedized VNA Test Coax, RoHS PE3VNA1804](#)



VNA Ruggedized Test Cable N Male to N Female 18GHz, RoHS

RF Cable Assemblies - PE3VNA1804

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|--------|--------|--------|----|----|-----------------|
| Frequency | 6 | 12 | 18 | | | GHz |
| Insertion Loss (Max.) | 0.28 | 0.41 | 0.52 | | | dB/ft [dB/m] |
| | [0.92] | [1.35] | [1.71] | | | |
| VSWR (Max.) | 1.25:1 | 1.25:1 | 1.25:1 | | | |
| Power Handling (Max.) | | | 88 | | | Watts |

Mechanical Specifications

Cable Assembly

One Time Minimum Bend Radius 4 in [101.6 mm]

Cable

Cable Type PE-VNA-R
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper, Silver
 Dielectric Type PTFE
 Number of Shields 3
 Shield Layer 1 Silver Plated Copper Braid
 Shield Layer 2 Silver Plated Copper Tape
 Shield Layer 3 Silver Plated Copper Braid
 Jacket Material PET
 Jacket Diameter 0.43 in [10.92 mm]

Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|----------------------------|----------------------------|
| Type | N Male | N Female |
| Impedance | 50 Ohms | 50 Ohms |
| Connection Method | Standard | Standard |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Dielectric Type | PTFE | PTFE |
| Coupling Nut Material and Plating | Passivated Stainless Steel | |
| Body Material and Plating | Passivated Stainless Steel | Passivated Stainless Steel |

Mechanical Specification Notes:

Crush Resistance: 1,050 lbs.

Jacket Material is a PET weave over a spiral stainless steel sheath

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Cable Using Ruggedized VNA Test Coax, RoHS PE3VNA1804](#)



VNA Ruggedized Test Cable N Male to N Female 18GHz, RoHS

RF Cable Assemblies - PE3VNA1804

Environmental Specifications

Temperature

Operating Range

+125 deg C

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant

Yes

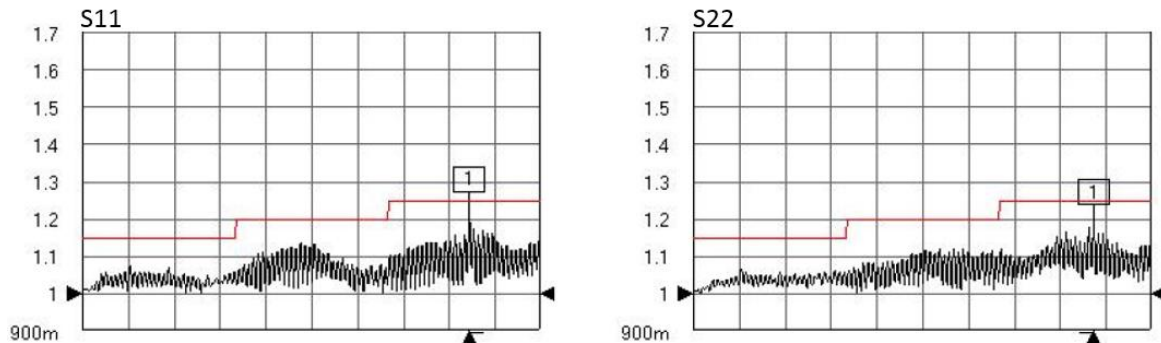
Plotted and Other Data

Notes:

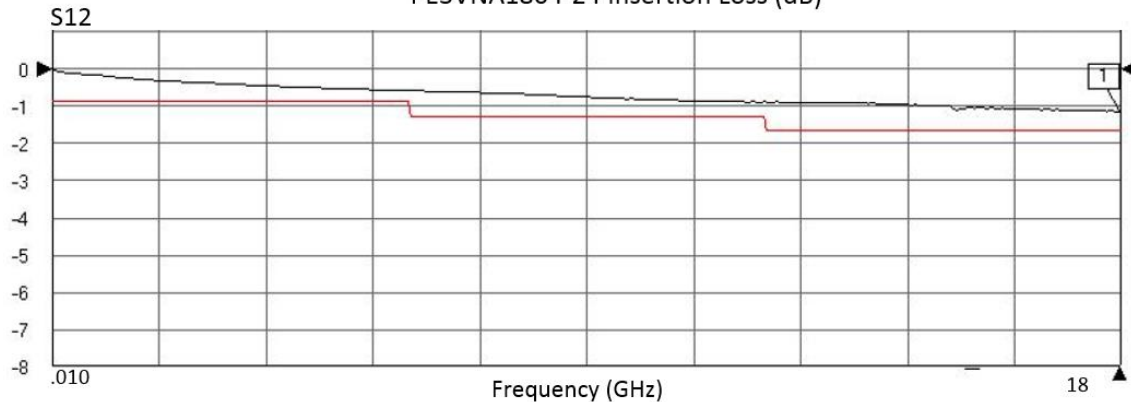
- Values at 25°C, sea level.

Typical Performance Data

PE3VNA1804-24 VSWR



PE3VNA1804-24 Insertion Loss (dB)



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Cable Using Ruggedized VNA Test Coax, RoHS PE3VNA1804](#)



VNA Ruggedized Test Cable N Male to N Female 18GHz, RoHS

RF Cable Assemblies - PE3VNA1804

How to Order

Part Number Configuration:

PE3VNA1804

- **xx**

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3VNA1804-12 = 12 inches long cable
PE3VNA1804-100cm = 100 cm long cable

VNA Ruggedized Test Cable N Male to N Female 18GHz, 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.

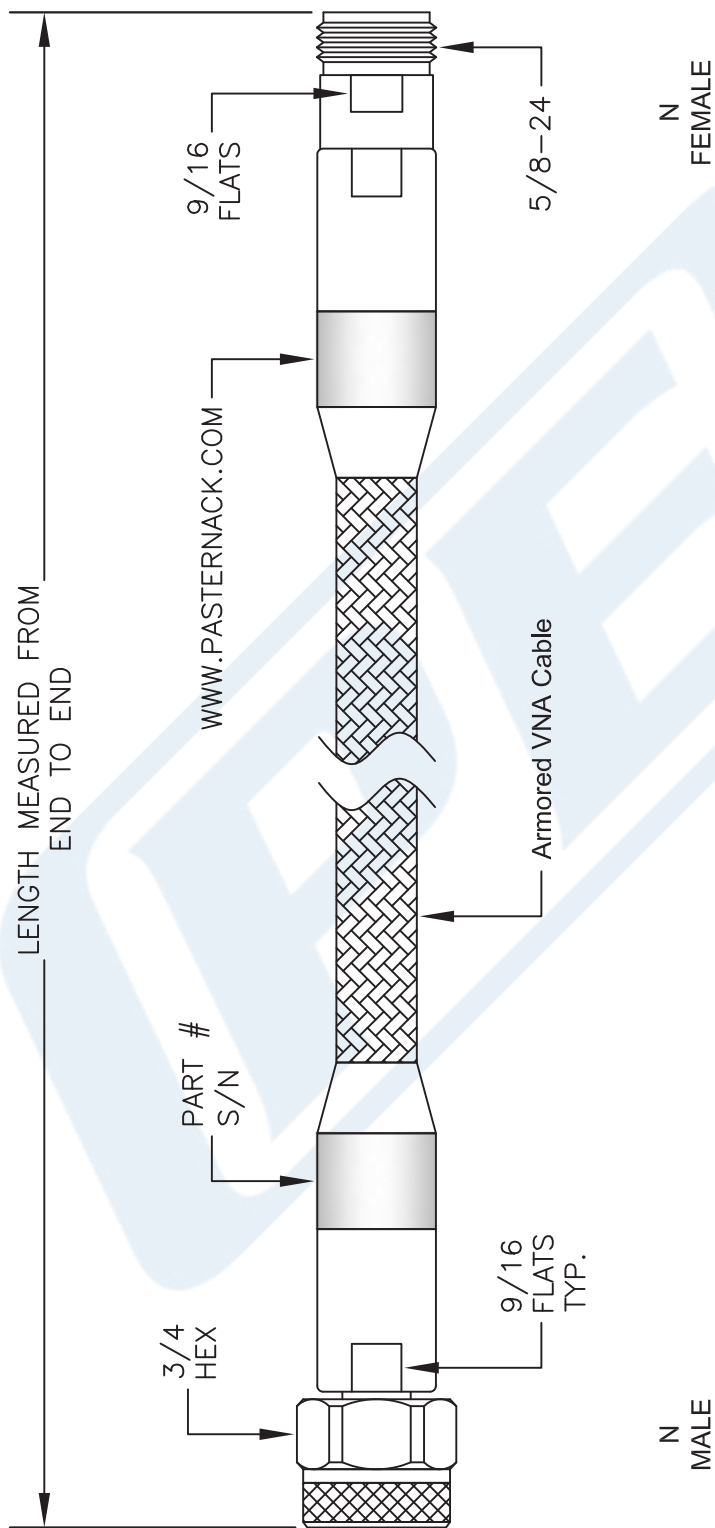
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Cable Using Ruggedized VNA Test Coax, RoHS PE3VNA1804](#)

URL: <http://www.pasternack.com/n-male-n-female-vna-cable-cable-assembly-pe3vna1804-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.

PE3VNA1804 CAD Drawing

VNA Ruggedized Test Cable N Male to N Female 18GHz, RoHS



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 ± 2%

DWG TITLE
PE3VNA1804

PE PASTERNAK
 THE ENGINEER'S RF SOURCE
 Pasternack Enterprises, Inc.
 P.O. Box 16759 | Irvine | CA | 92623
 Phone: (949) 261-1920 | Fax: (949) 261-7451
 Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

CAD FILE 072115

SCALE N/A

SIZE A

2233