



VNA Ruggedized Test Cable 3.5mm Male to 3.5mm Male 27GHz 36 Inch Length, RoHS

RF Cable Assemblies Technical Data Sheet

PE3VNA2603-36

Configuration

- Connector 1: 3.5mm Male
- Connector 2: 3.5mm Male
- Cable Type: PE-VNA-R

Features

- Max Frequency 27 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Triple Shielded
- PET Jacket
- 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

- General Purpose
- Laboratory Use
- 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 +/- 3° 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [VNA Ruggedized Test Cable 3.5mm Male to 3.5mm Male 27GHz 36 Inch Length, RoHS PE-3VNA2603-36](#)



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Electrical Specifications

| Description | Minimum | Typical | Maximum | Units |
|------------------------------|---------|--------------|---------|--------------|
| Frequency Range | DC | | 27 | 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 | | 3 | | Degrees |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-----|------|------|----|----|-------|
| Frequency | 12 | 18 | 26.5 | | | GHz |
| Insertion Loss (Max.) | 1.5 | 1.88 | 2.36 | | | dB |
| Power Handling (Max.) | | | 65 | | | W |

Mechanical Specifications

Cable Assembly

| | |
|---------|----------------------|
| Length* | 36 in [914.4 mm] |
| Weight | 0.485 lbs [219.99 g] |

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] |
| One Time Minimum Bend Radius | 4 in [101.6 mm] |

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Connectors

| Description | Connector 1 | Connector 2 |
|-----------------------------------|----------------------------|----------------------------|
| Type | 3.5mm Male | 3.5mm Male |
| Impedance | 50 Ohms | 50 Ohms |
| Contact Material and Plating | Beryllium Copper, Gold | Beryllium Copper, Gold |
| Dielectric Type | PCTFE | PCTFE |
| Body Material and Plating | Passivated Stainless Steel | Passivated Stainless Steel |
| Coupling Nut Material and Plating | Passivated Stainless Steel | Passivated Stainless Steel |

Mechanical Specification Notes:

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

Crush Resistance: 1,050 lbs.//Jacket Material is a PET weave over a spiral stainless steel sheath

Environmental Specifications

Temperature

Operating Range +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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How to Order

Part Number Configuration:

PE3VNA2603

- **xx**

uu

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

Example: PE3VNA2603-12 = 12 inches long cable
PE3VNA2603-100cm = 100 cm long cable

VNA Ruggedized Test Cable 3.5mm Male to 3.5mm Male 27GHz 36 Inch Length, RoHS 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.

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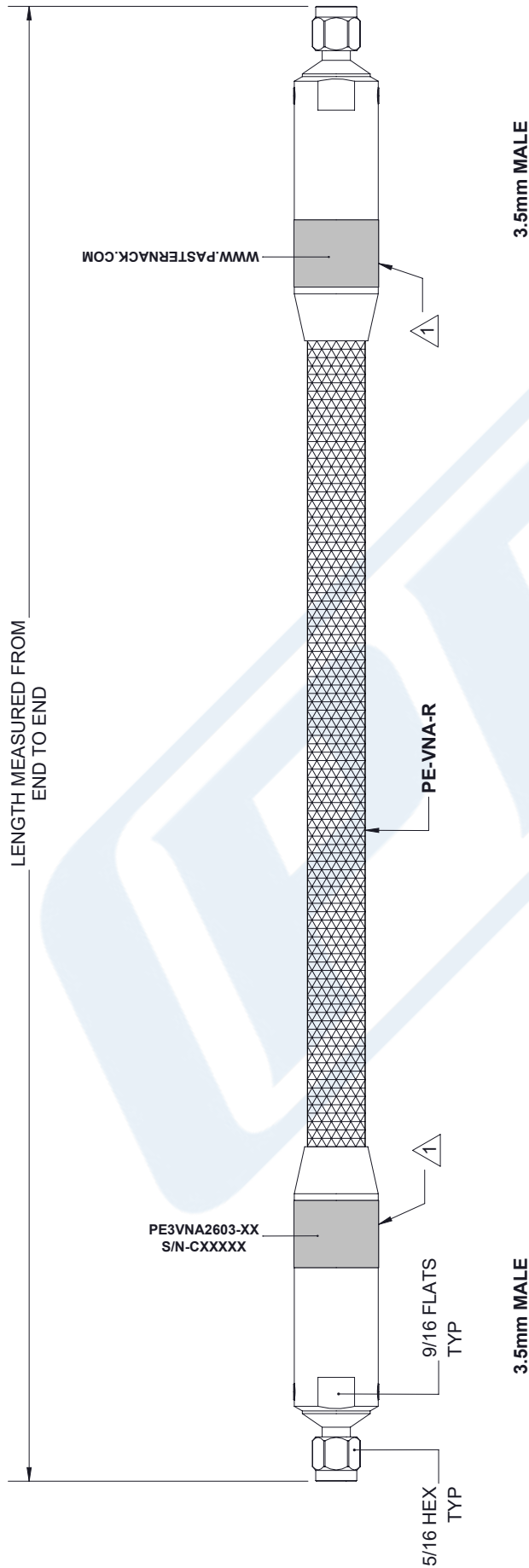
URL: <https://www.pasternack.com/3.5mm-male-3.5mm-male-vna-cable-cable-assembly-pe3vna2603-36-p.aspx>

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PE3VNA2603-36 CAD Drawing

VNA Ruggedized Test Cable 3.5mm Male to 3.5mm Male 27GHz 36 Inch Length, RoHS

| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 03/26/19 | S. ELLIS |



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 X±.2 [5.08]
 .XX±.01 [.25]
 .XXX±.005 [.13]

FRACTIONS
 ±1/32
 ANGLES ± 1°

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
 THIRD-ANGLE PROJECTION

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SIZE A CAGE 53919 DRAWN BY K.DANG PART NUMBER PE3VNA2603 REV A

- NOTES:
- BLACK LETTERS ON SILVER LABEL.

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