

## 3.5mm Male to 3.5mm Female Test Cable 72 Inch Length Using VNA Test Cable Coax, LF Solder

### PE317-72

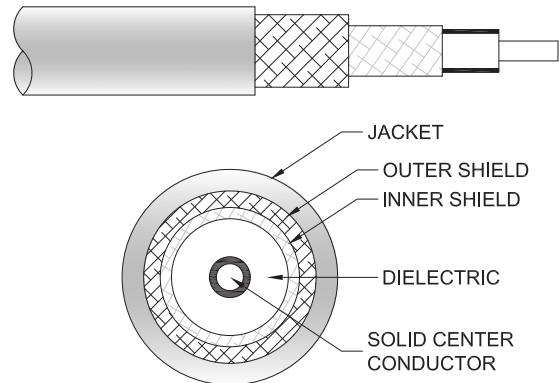


#### Configuration

- Connector 1: 3.5mm Male
- Connector 2: 3.5mm Female
- Cable Type: VNA Cable
- Coax Flex Type: Flexible

#### Features

- Max Frequency 26.5 GHz
- 77% Phase Velocity
- Double Shielded
- FEP Jacket



#### Applications

- General Purpose
- Test & Measurement
- Laboratory Use

#### Description

Pasternack's PE317-72 3.5mm male to 3.5mm female test 72 inch cable using VNA test cable coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack 3.5mm to 3.5mm cable assembly has a male to female gender configuration with 50 ohm flexible VNA cable coax. The PE317-72 3.5mm male to 3.5mm female cable assembly operates to 26.5 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness.

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.

#### Electrical Specifications

| Description                          | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|---------|---------|-------|
| Frequency Range                      | DC      |         | 26.5    | GHz   |
| Return Loss                          |         |         | -18     | dB    |
| Velocity of Propagation              |         | 77      |         | %     |
| Dielectric Withstanding Voltage (AC) |         |         | 1,000   | Vrms  |

#### Specifications by Frequency

| Description           | F1   | F2   | F3  | F4   | F5 | Units |
|-----------------------|------|------|-----|------|----|-------|
| Frequency             | 1    | 10   | 18  | 26.5 |    | GHz   |
| Insertion Loss (Max.) | 0.48 | 1.74 | 2.4 | 3    |    | dB    |
| Return Loss (Max.)    | -30  | -25  | -20 | -18  |    | dB    |

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### PE317-72



#### Specifications by Frequency

| Description           | F1 | F2  | F3 | F4 | F5 | Units |
|-----------------------|----|-----|----|----|----|-------|
| Power Handling (Max.) |    | 286 |    |    |    | Watts |

##### Electrical Specification Notes:

Shielding effectiveness > 100 dB at 1 GHz.

Insertion loss does not include the loss of the connectors.

Insertion loss is estimated as  $0.05 \times \sqrt{f(\text{GHz})}$  dB per connector.

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter

0.47 in [11.94 mm]

Weight

1.105 lbs [501.22 g]

##### Cable

Cable Type

VNA Cable

Impedance

50 Ohms

Inner Conductor Type

Solid

Inner Conductor Material and Plating

Copper, Silver

Dielectric Type

PTFE

Number of Shields

2

Shield Layer 1

Silver Plated Copper Tape

Shield Layer 2

Silver Plated Copper Braid

Jacket Material

FEP

Repeated Minimum Bend Radius

1.38 in [35.05 mm]

Typical Flex Cycles

10,000

#### Connectors

| Description                          | Connector 1                | Connector 2                |
|--------------------------------------|----------------------------|----------------------------|
| Type                                 | 3.5mm Male                 | 3.5mm Female               |
| Specification                        | MIL-STD-348                | MIL-STD-348                |
| Impedance                            | 50 Ohms                    | 50 Ohms                    |
| Configuration                        | Straight                   | Straight                   |
| Contact Material and Plating         | Gold                       | Gold                       |
| Dielectric Type                      | PPO                        | PPO                        |
| Outer Conductor Material and Plating |                            | Passivated Stainless Steel |
| Body Material and Plating            | Passivated Stainless Steel |                            |
| Coupling Nut Material and Plating    | Passivated Stainless Steel |                            |
| Hex Size                             | 5/16 inch                  |                            |
| Torque                               | 8 in-lbs 0.9 Nm            |                            |

#### Environmental Specifications

Operating Range Temperature

-55 to +165 deg C

### 3.5mm Male to 3.5mm Female Test Cable 72 Inch Length Using VNA Test Cable Coax, LF Solder



**PE317-72**

**Compliance Certifications** (see [product page](#) for current document)

## Plotted and Other Data

Notes:  
Values at 25°C, sea level.

## Typical Performance Data

## How to Order

### Part Number Configuration:

PE317      - xx      uu

└────────── Unit of Measure:  
            cm = Centimeters  
            <blank> = Inches

└────────── Length

└────────── Base Number

Example: PE317-12 = 12 inches long cable  
PE317-100cm = 100 cm long cable

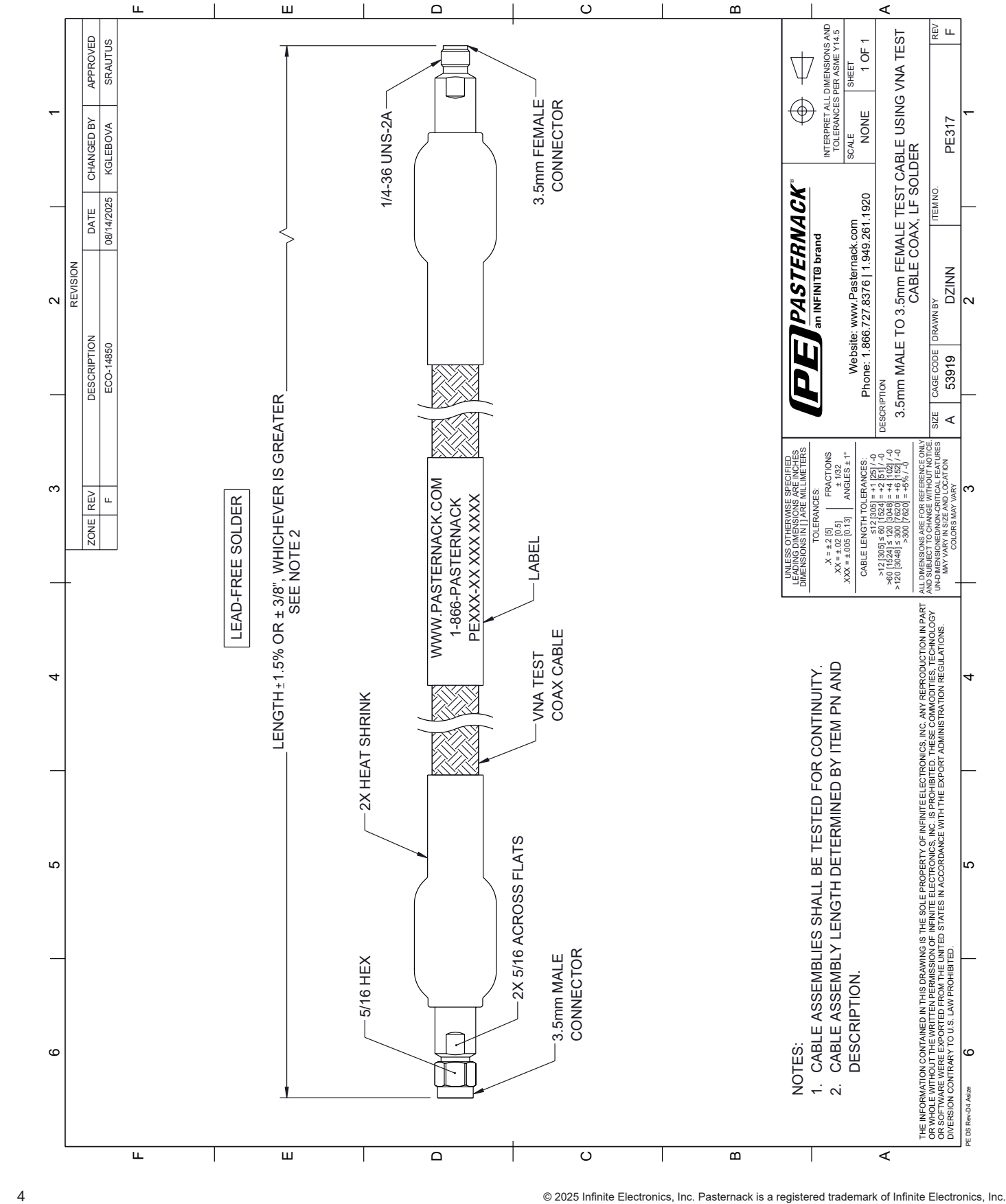
3.5mm Male to 3.5mm Female Test Cable 72 Inch Length Using VNA Test Cable Coax, LF Solder from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [3.5mm Male to 3.5mm Female Test Cable 72 Inch Length Using VNA Test Cable Coax, LF Solder PE317-72](#)

URL: <https://www.pasternack.com/3.5mm-male-3.5mm-female-vna-cable-cable-assembly-pe317-72-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE317-72 CAD Drawing
3.5mm Male to 3.5mm Female Test Cable 72 Inch Length Using VNA Test Cable Coax, LF Solder



NOTES:

- CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
- CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, UNLESS INDICATED OTHERWISE. DIMENSIONS IN [ ] ARE MILLIMETERS.

TOLERANCES:

|                     |             |
|---------------------|-------------|
| X = ±.2 [5]         | FRACTIONS   |
| .XX = ±.02 [0.5]    | ± 1/32      |
| .XXX = ±.005 [0.13] | ANGLES ± 1° |

CABLE LENGTH TOLERANCES:

|                          |                |
|--------------------------|----------------|
| >12 [305] ≤ 60 [1524]    | ±.1 [25] / -0  |
| >60 [1524] ≤ 120 [3048]  | ±.2 [51] / -0  |
| >120 [3048] ≤ 300 [7620] | ±.4 [102] / -0 |
| >300 [7620]              | ±.6 [152] / -0 |

ALL DIMENSIONS ARE FOR REFERENCE ONLY. DIMENSIONS OF INDIVIDUAL COMPONENTS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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PE DS Rev-D4 Adda

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Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE

SHEET: 1 OF 1

DESCRIPTION: 3.5mm MALE TO 3.5mm FEMALE TEST CABLE USING VNA TEST CABLE COAX, LF SOLDER

|      |           |          |          |     |
|------|-----------|----------|----------|-----|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO. | REV |
| A    | 53919     | DZINN    | PE317    | F   |