



N Male to N Female Low PIM Cable Using TFT-402 Coax Using Times Microwave Components

RF Cable Assemblies Technical Data Sheet

PE3C7969

Configuration

- Connector 1: N Male
- Connector 2: N Female
- Cable Type: TFT-402

Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > -80 dB
- 76% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles

Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Indoor and Outdoor Use
- Plenum Rated Applications

Description

Pasternack's PE3C7969 type N male to type N female cable using TFT-402 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 type N to type N cable assembly has a male to female gender configuration with 50 ohm flexible TFT-402 coax. The PE3C7969 type N male to type N female cable assembly operates to 5.8 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than -80 dB.

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 | | 5.8 | GHz |
| VSWR | | | 1.4:1 | |
| Velocity of Propagation | | 76 | | % |
| RF Shielding | -80 | | | dB |
| Passive Intermodulation | | | -160 | dBc |

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 Low PIM Cable Using TFT-402 Coax Using Times Microwave Components PE3C7969](#)



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| | | |
|-------------------------------|-------------|----------------------------------|
| Capacitance | 26.7 [87.6] | pF/ft [pF/m] |
| DC Resistance Inner Conductor | 8.5 [27.89] | Ω /1000ft [Ω /Km] |
| DC Resistance Outer Conductor | 5.6 [18.37] | Ω /1000ft [Ω /Km] |

Specifications by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|------|------|------|------|------|-------|
| Frequency | 0.25 | 0.5 | 1 | 2.5 | 5.8 | GHz |
| Insertion Loss (Typ.) | 0.05 | 0.07 | 0.1 | 0.17 | 0.26 | dB/ft |
| | 0.16 | 0.23 | 0.33 | 0.56 | 0.85 | dB/m |

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as $0.1 \cdot \sqrt{FGHz}$ dB for the male connector and 0.1 dB for the female connector.

Mechanical Specifications

Cable Assembly

Cable

| | |
|--------------------------------------|----------------------------|
| Cable Type | TFT-402 |
| 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 Braid |
| Shield Layer 2 | Tinned Copper Braid |
| Jacket Material | FEP, Blue |
| Jacket Diameter | 0.16 in [4.06 mm] |
| One Time Minimum Bend Radius | 0.75 in [19.05 mm] |

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Connectors

| Description | Connector 1 | Connector 2 |
|---------------------------------------|--------------------|-----------------------------|
| Type | N Male | N Female |
| Impedance | 50 Ohms | 50 Ohms |
| Mating Cycles | 500 | 500 |
| Contact Material and Plating | Brass, Silver | Phosphor Bronze, Silver |
| Contact Plating Specification | 200 µin | 5 µm |
| Dielectric Type | PTFE | PTFE |
| Outer Conductor Material and Plating | | Brass, Copper Clad Aluminum |
| Outer Conductor Plating Specification | | 3 µm |
| Body Material and Plating | Brass, Tri-Metal | Brass, Copper Clad Aluminum |
| Body Plating Specification | 80 µin | 3 µm |
| Coupling Nut Material and Plating | Brass, Tri-Metal | |
| Coupling Nut Plating Specification | 80 µin | |
| Torque | 15 in-lbs [1.7 Nm] | 10 in-lbs [1.13 Nm] |

Environmental Specifications

Temperature

Operating Range -40 to +125 deg C

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

Plotted and Other Data

Notes:

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How to Order

Part Number Configuration:

PE3C7969

- **xx**

uu

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

Example: PE3C7969-12 = 12 inches long cable
PE3C7969-100cm = 100 cm long cable

N Male to N Female Low PIM Cable Using TFT-402 Coax Using Times Microwave Components 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 Male to N Female Low PIM Cable Using TFT-402 Coax Using Times Microwave Components PE3C7969](https://www.pasternack.com/n-male-n-female-tft-402-cable-assembly-pe3c7969-p.aspx)

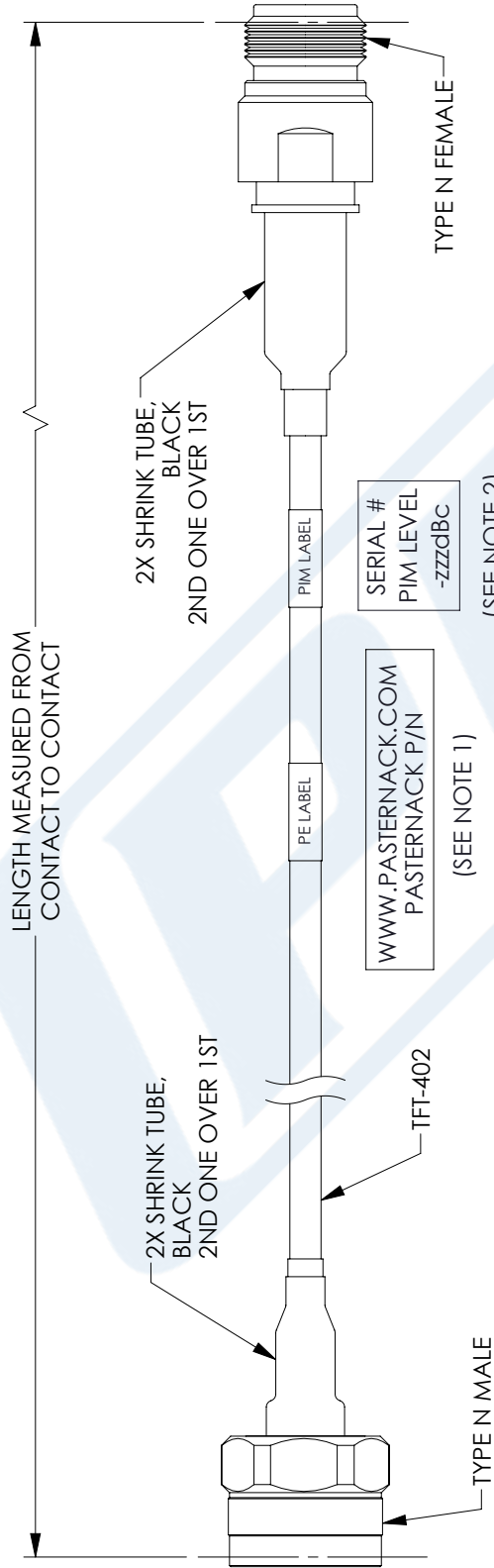
URL: <https://www.pasternack.com/n-male-n-female-tft-402-cable-assembly-pe3c7969-p.aspx>

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PE3C7969 CAD Drawing

N Male to N Female Low PIM Cable Using TFT-402 Coax Using Times Microwave Components

| REVISIONS | | |
|-----------|---|----------------------|
| REV. | DESCRIPTION | DATE |
| B | PCR PE3C7959 20220517 AND PE3C7948 20210610 | 5/17/22 |
| | | APPROVED SRAUTJUS |



NOTES:

1. CABLES 84" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 84" HAVE 2 LABELS, ONE AT EACH END 12" FROM THE FRONT OF THE CONNECTOR.
2. PIM LABEL 6" FROM CABLE END 1 PLACE.

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| | |
|--|----------------|
| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS | |
| TOLERANCES: | FRACTIONS |
| .X = ±.2 [.51] | ±.1/32 |
| .XX = ±.02 [.51] | ±.1/32 |
| .XXX = ±.005 [.13] | ANGLES ± 1° |
| CABLE LENGTH (L) TOLERANCES: | |
| L ≤ 12 [305] | ±.1 [25] / -0 |
| 12 [305] < L ≤ 60 [1524] | ±.2 [51] / -0 |
| 60 [1524] < L ≤ 120 [3048] | ±.4 [102] / -0 |
| 120 [3048] < L ≤ 300 [7620] | ±.6 [152] / -0 |
| 300 [7620] < L = +5%L / -0 | |
| ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. | |

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|------------------------|--|--|--------------|
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| SCALE | | N/A | |
| SIZE | | REV B | |
| CAGE CODE | | ITEM NO. | |
| A 53919 | | DFRISIELLO PE3C7969 | |