



NEX10 Male to NEX10 Male Low PIM Cable Using TFT-402 Coax Using Times Microwave Components

RF Cable Assemblies Technical Data Sheet

PE3C7971

Configuration

- Connector 1: NEX10 Male
- Connector 2: NEX10 Male
- 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
- 100 Mating Cycles

Applications

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

Description

Pasternack's PE3C7971 NEX10 male to NEX10 male 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 NEX10 to NEX10 cable assembly has a male to male gender configuration with 50 ohm flexible TFT-402 coax. The PE3C7971 NEX10 male to NEX10 male 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: [NEX10 Male to NEX10 Male Low PIM Cable Using TFT-402 Coax Using Times Microwave Components PE3C7971](#)



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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
	0.16	0.23	0.33	0.56	0.85	

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as $0.1 \cdot \sqrt{F(\text{GHz})}$ dB per connector.

Mechanical Specifications

Cable Assembly

Length*	0 in [0 mm]
Diameter	0.472 in [11.99 mm]

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	NEX10 Male	NEX10 Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	100	100
Contact Material and Plating	Brass, Silver	Brass, Silver
Contact Plating Specification	100 µin	100 µin
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Silver	Brass, Silver
Body Plating Specification	100 µin	100 µin
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	100 µin	100 µin
Torque	9 in-lbs [1.02 Nm]	9 in-lbs [1.02 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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PE3C7971

How to Order

Part Number Configuration:

PE3C7971

- **xx**

uu

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

Example: PE3C7971-12 = 12 inches long cable
PE3C7971-100cm = 100 cm long cable

NEX10 Male to NEX10 Male 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.

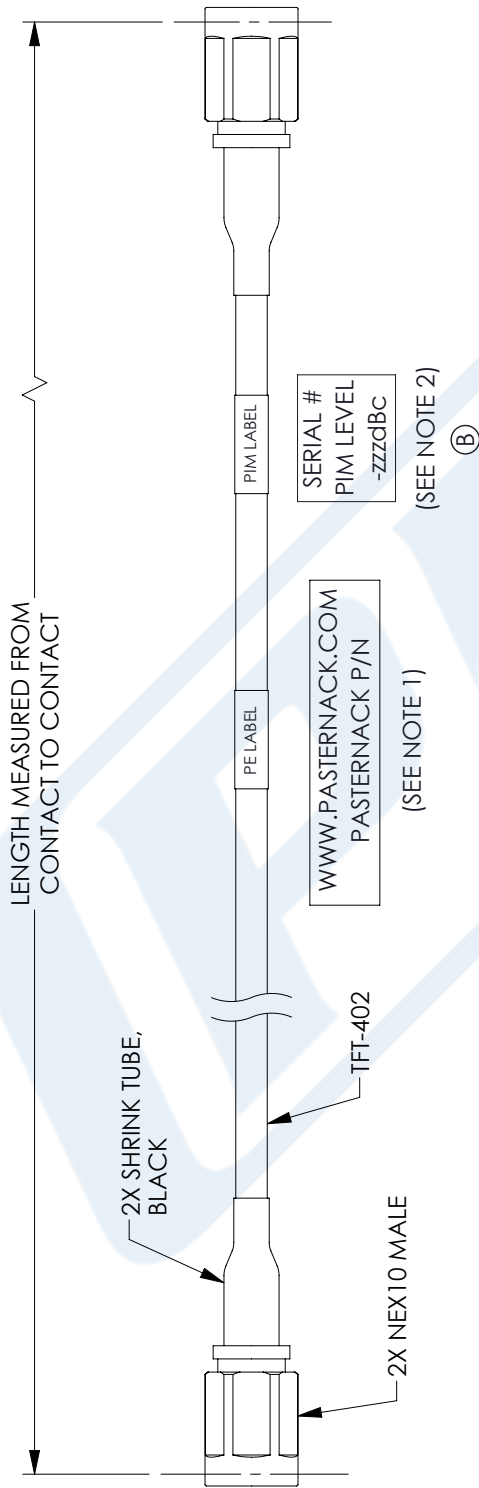
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URL: <https://www.pasternack.com/nex10-male-nex10-male-tft-402-cable-assembly-pe3c7971-p.aspx>

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.

PE3C7971 CAD Drawing
NEX10 Male to NEX10 Male Low PIM Cable Using
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/13/2021	SELLIS
B	ADD PIM LABEL, UPDATE NOTES	7/12/21	SRAUTUS



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.

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

TOLERANCES:

.X = ± .2 [.08] FRACTIONS

.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% / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.



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SHEET 1 OF 1

SCALE N/A

REV B



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SIZE A CAGE CODE 53919 DRAWN BY DFRISIELLO ITEM NO. PE3C7971

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