PASTERNACK
an INFINITE brand

2.4mm Female to 2.4mm Female Precision Cable 24 Inch Length Using High Flex VNA Test Coax

RF Cable Assemblies Technical Data Sheet PE3TC0650-24

Configuration

- Connector 1: 2.4mm Female
- Connector 2: 2.4mm Female
- Cable Type: PE-VNA-HF

Features

- Max Frequency 50 GHz
- Shielding Effectivity > 100 dB
- 78% Phase Velocity
- Triple Shielded
- Designed for use as VNA test port extenders
- Highly flexible armored cable construction
- 1.30:1 VSWR to 50 GHz
- Excellent amplitude and phase stability with flexure
- Non-conductive protective Nomex outer sleeve
- In-stock and ready to ship same-day

Applications

- General Purpose
- Laboratory Use
- Vector Network analyzer test port extenders
- Semiconductor probe testing
- Precise bench-top testing
- Lab and production testing

Description

Pasternack's PE3TC0650-24 2.4mm female to 2.4mm female 24 inch cable using high flex VNA test 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 2.4mm to 2.4mm cable assembly has a female to female gender configuration with 50 ohm flexible PE-VNA-HF coax. The PE3TC0650-24 2.4mm female to 2.4mm female cable assembly operates to 50 GHz. The triple shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 100 dB. Pasternack high performance high flex VNA test cables are designed to provide customers repeatable and accurate VNA measurements. These Test cables have excellent electrical properties including low Insertion Loss, low VSWR and phase stability of +/- 6° with flexure. The braided stainless steel armoring provides a rugged, but flexible cable with a life exceeding 100,000 flex cycles. The rugged connectors provide up to 5,000 mating cycles when attached with proper care. The flexibility of these cables makes it easier and safer to test your Device Under Test (DUT). 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.

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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: 2.4mm Female to 2.4mm Female Precision Cable 24 Inch Length Using High Flex VNA Test Coax PE3TC0650-24

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		50	GHz
VSWR			1.3:1	
Velocity of Propagation		78		%
RF Shielding	100			dB
Group Delay		1.34 [4.4]		ns/ft [ns/m]
Capacitance		25.9 [84.97]		pF/ft [pF/m]
Input Power (Average)			18	Watts
Phase Stability with Flexure		6		Degrees
Amplitude Stability with Flexure		0.1		dB

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	40	50				GHz
Insertion Loss (Max.)	3.4	3.8				dB

Electrical Specification Notes:
Values at 25°C, sea level.

Mechanical Specifications

Cable Assembly

Length*	24 in [609.6 mm]
Weight	0.156 lbs [70.76 g]

Cable

Cable Type	PE-VNA-HF
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 Tape
Shield Layer 2	Silver Plated Copper Braid
Shield Layer 3	Silver Plated Copper Braid
Jacket Diameter	0.27 in [6.86 mm]
One Time Minimum Bend Radius	1 in [25.4 mm]
Flat Plate Crush	317 lbs/in [5.66 Kg/mm]

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Connectors

Description	Connector 1	Connector 2
Type	2.4mm Female	2.4mm Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	ULTEM	ULTEM
Outer Conductor Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Environmental Specifications

Temperature

Operating Range -65 to +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: **PE3TC0650 - xx uu**

- uu — Unit of Measure: cm = Centimeters; <blank> = Inches
- xx — Length
- PE3TC0650 — Base Number

Example: PE3TC0650-12 = 12 inches long cable
PE3TC0650-100cm = 100 cm long cable

2.4mm Female to 2.4mm Female Precision Cable 24 Inch Length Using High Flex VNA Test Coax 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: 2.4mm Female to 2.4mm Female Precision Cable 24 Inch Length Using High Flex VNA Test Coax PE3TC0650-24

URL: https://www.pasternack.com/2.4mm-female-2.4mm-female-vna-cable-cable-assembly-pe3tc0650-24-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.

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PE3TC0650-24 CAD Drawing

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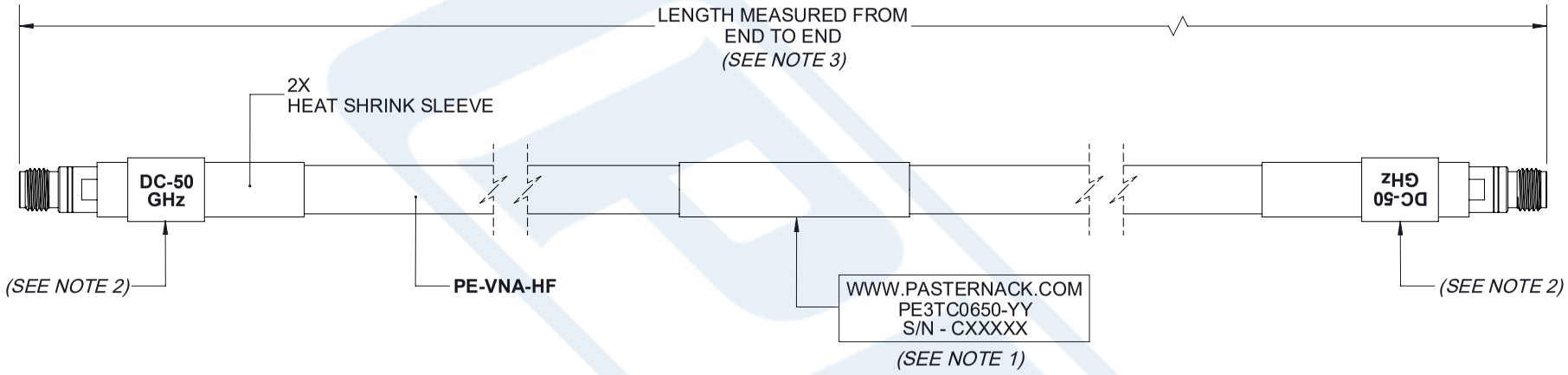
Length Using High Flex VNA Test Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	6/2/2020	S.ELLIS



NOTES:
1. WHITE LETTER ON BLACK LABEL.
2. BLACK LETTER ON BLUE LABEL.
3. CABLE LENGTH (L) TOLERANCES: ± 2%L.

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

TOLERANCES:

.X = ± .2 [5.08]	FRACTIONS ± 1/32
.XX = ± .02 [.51]	ANGLES ± 1°
.XXX = ± .005 [.13]	

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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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	K.DANG	PE3TC0650	A