

## 1.85mm Male to 1.85mm Male Precision Cable 100CM Length Using High Flex VNA Test Coax

### PECN3TC0800-100CM

#### Configuration

- Connector 1: 1.85mm Male
- Connector 2: 1.85mm Male
- Cable Type: PE-VNA-HF
- Coax Flex Type: Flexible

#### Features

- Max Frequency 70 GHz
- Shielding Effectivity > 100 dB
- 78% Phase Velocity
- Triple Shielded
- Designed for use as VNA test port extenders
- Highly flexible armored cable construction
- 1.40:1 VSWR to 67 GHz
- Excellent amplitude and phase stability with flexure
- Non-conductive protective Nomex outer sleeve
- Each serialized assembly comes with test data
- 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 PECN3TC0800-100CM 1.85mm male to 1.85mm male 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 1.85mm to 1.85mm cable assembly has a male to male gender configuration with 50 ohm flexible PE-VNA-HF coax. The PECN3TC0800-100CM 1.85mm male to 1.85mm male cable assembly operates to 70 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 +/- 8µ 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.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		70	GHz

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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
VSWR			1.4:1	
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		12		Degrees

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	5	10	20	40	70	GHz
Insertion Loss (Max.)	0.48	0.68	1	1.45	2.5	dB/ft
	1.57	2.23	3.28	4.76	8.2	dB/m
Power Handling (Max.)					18	Watts

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

#### Mechanical Specifications

##### Cable Assembly

Width/Diameter 0 in [0 mm]

##### 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 0.185 in [4.7 mm]  
 One Time Minimum Bend Radius 0.91 in [23.11 mm]  
 Repeated Minimum Bend Radius 1.85 in [46.99 mm]

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#### Connectors

Description	Connector 1	Connector 2
Type	1.85mm Male	1.85mm Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Dielectric Type	PEEK&PEI	PEEK&PEI
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

#### Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

#### Plotted and Other Data

Notes:  
Values at 25°C, sea level.

## 1.85mm Male to 1.85mm Male Precision Cable 100CM Length Using High Flex VNA Test Coax

### PECN3TC0800-100CM

#### Typical Performance Data

#### How to Order



Example:      PECN3TC0800-12 = 12 inches long cable  
                 PECN3TC0800-100cm = 100 cm long cable

1.85mm Male to 1.85mm Male Precision Cable 100CM 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.

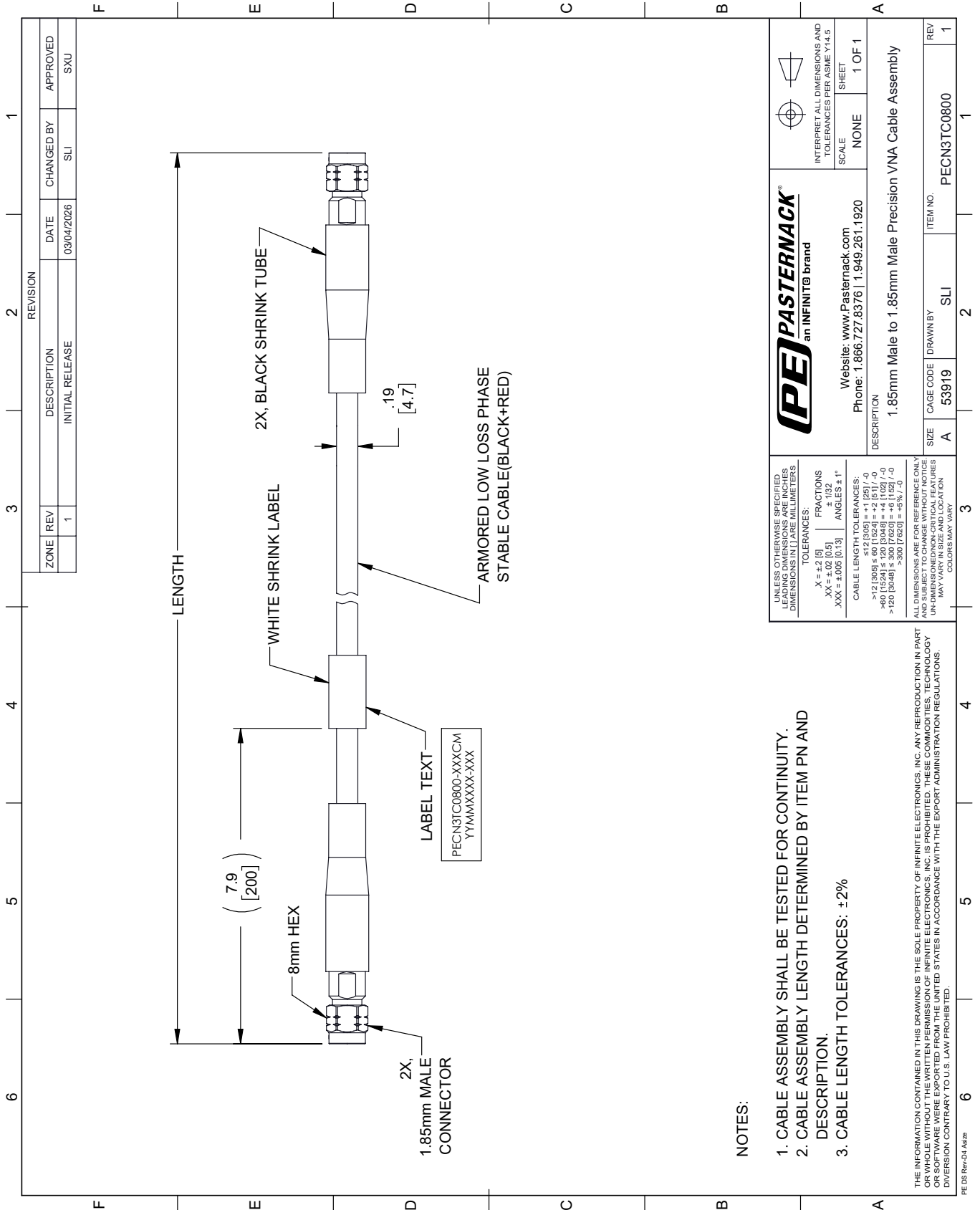
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Male to 1.85mm Male Precision Cable 100CM Length Using High Flex VNA Test Coax PECN3TC0800-100CM](#)

URL: <https://www.pasternack.com/1.85mm-male-1.85mm-male-vna-cable-cable-assembly-pecn3tc0800-100cm-p.aspx>

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# PECN3TC0800-100CM CAD Drawing

1.85mm Male to 1.85mm Male Precision Cable 100CM Length Using High Flex VNA Test Coax



**NOTES:**

1. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
2. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
3. CABLE LENGTH TOLERANCES: ±2%

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PE DS Rev-D4 Asize

REVISION		DATE	CHANGED BY	APPROVED
ZONE	REV	DESCRIPTION	INITIAL RELEASE	
	1		SLI	SXU

Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a> 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: 1.85mm Male to 1.85mm Male Precision VNA Cable Assembly		
SIZE	CAGE CODE	ITEM NO.
A	53919	PECN3TC0800
REV	REV	REV
1	1	1