

## SMPS Female Right Angle to SMA Male Cable Using PE-P047HF Coax

### TECHNICAL DATA SHEET

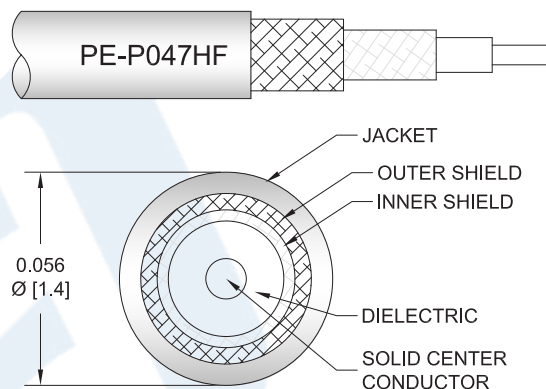
**PE3C9970**

#### Configuration

- Connector 1: SMPS Female Right Angle
- Connector 2: SMA Male
- Cable Type: PE-P047HF
- Coax Flex Type: Flexible

#### Features

- Max Frequency 27 GHz
- Shielding Effectivity > 90 dB
- 70% Phase Velocity
- Double Shielded
- FEP Jacket



#### Applications

- General Purpose
- Laboratory Use
- Scientific research
- High-reliability, high-density for aerospace & defense application
- Ground base station & communication systems, avionics, radar systems

#### Description

Pasternack's PE3C9970 SMPS female right angle to SMA male cable using PE-P047HF 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 SMPS to SMA cable assembly has a female to male gender configuration with 50 ohm flexible PE-P047HF coax. The PE3C9970 SMPS female to SMA male cable assembly operates to 27 GHz. The right angle SMPS interface on the PE-P047HF cable allows for easier connections in tight spaces. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMPS Female Right Angle to SMA Male Cable Using PE-P047HF Coax PE3C9970](#)



## SMPS Female Right Angle to SMA Male Cable Using PE-P047HF Coax

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**PE3C9970**

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		27	GHz
VSWR			1.5:1	
Velocity of Propagation		70		%
RF Shielding	90			dB
Capacitance		29 [95.14]		pF/ft [pF/m]

#### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	18000	27000	MHz	
PE3C9970	Custom Lengths Available	Insertion Loss (Typ.)	0.35	0.49	0.763	1.107	1.681	dB/ft	
			1.15	1.61	2.51	3.64	5.52	dB/m	
PE3C9970-6	6 inch	Insertion Loss (Typ.)	0.45	0.63	0.92	1.28	1.73	dB	0.015
PE3C9970-12	12 inch	Insertion Loss (Typ.)	0.62	0.88	1.31	1.83	2.57	dB	0.017
PE3C9970-18	18 inch	Insertion Loss (Typ.)	0.8	1.12	1.69	2.39	3.41	dB	0.019

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

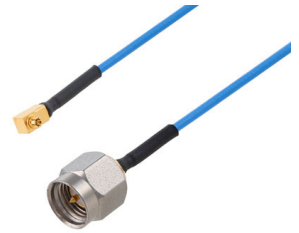
Loss due to Connector 1:	0.12*SQRT(FGHz) dB
Loss due to Connector 2:	0.05*SQRT(FGHz) dB
Base Weight:	0.017 pounds
Additional Weight per Inch:	0.00033 pounds

#### Mechanical Specifications

##### Cable Assembly

Weight 0.0144 lbs [6.53 g]

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#### Cable

Cable Type	PE-P047HF
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, Blue
Jacket Diameter	0.06 in [1.52 mm]
Repeated Minimum Bend Radius	0.1 in [2.54 mm]

#### Connectors

Description	Connector 1	Connector 2
Type	SMPS Female Right Angle Push-on	SMA Male Threaded
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Contact Plating Specification	50 µin minimum	MIL-G-45204
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Beryllium Copper, Gold	
Outer Conductor Plating Specification	50 µin minimum	
Body Material and Plating	Beryllium Copper, Gold	Brass, Gold
Body Plating Specification	30 µin minimum	MIL-G-45204
Coupling Nut Material and Plating		Passivated Stainless Steel
Coupling Nut Plating Specification		ASTM-A380

#### Environmental Specifications

##### Temperature

Operating Range -55 to +100 deg C

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

#### Plotted and Other Data

Notes:

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SMPS Female Right Angle to SMA Male  
Cable Using PE-P047HF Coax

**TECHNICAL DATA SHEET**

**PE3C9970**

**How to Order**

Part Number Configuration:

**PE3C9970**

- **xx**

**uu**

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

Example: PE3C9970-12 = 12 inches long cable  
PE3C9970-100cm = 100 cm long cable

SMPS Female Right Angle to SMA Male Cable Using PE-P047HF 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: [SMPS Female Right Angle to SMA Male Cable Using PE-P047HF Coax PE3C9970](https://www.pasternack.com/smps-female-right-angle-to-sma-male-cable-using-pe-p047hf-pe3c9970-p.aspx)

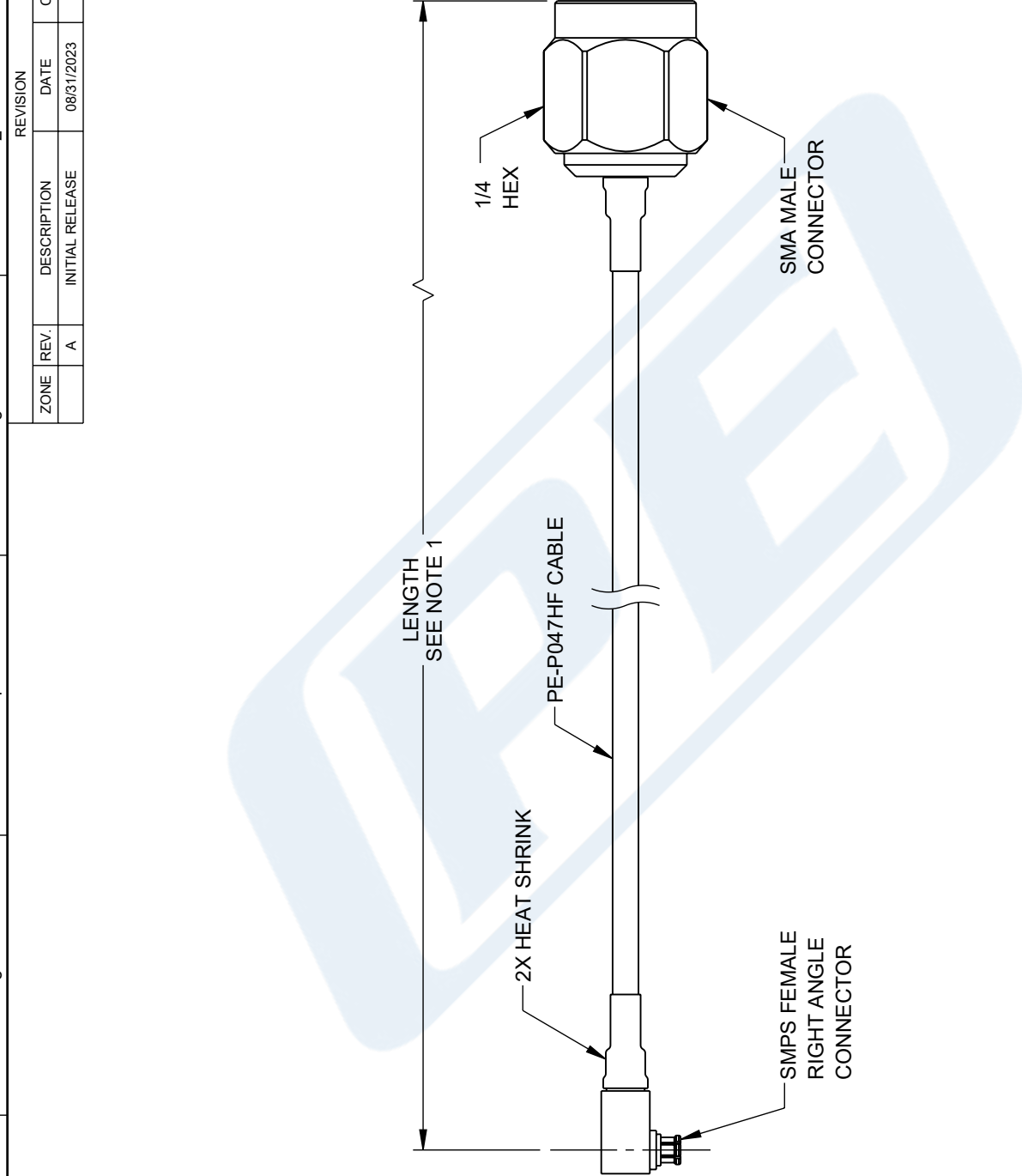
URL: <https://www.pasternack.com/smps-female-right-angle-to-sma-male-cable-using-pe-p047hf-pe3c9970-p.aspx>

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.

# PE3C9970 CAD Drawing

SMPS Female Right Angle to SMA Male Cable Using PE-P047HF Coax

REVISION			
ZONE	REV.	DESCRIPTION	DATE
	A	INITIAL RELEASE	08/31/2023
		CHANGED BY	BPUCHASKI
		APPROVED BY	AGANWANI



## NOTES:

1. CABLE ASSEMBLY LENGTH DETERMINED BY P/N AS ILLUSTRATED:  
PE3C9970-XXX ( -XXX = LENGTH IN INCHES )
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY

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<div>UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE IN MILLIMETERS.</div> <div>TOLERANCES: X = ±.2 [5] XX = ±.02 [0.5] XXX = ±.005 [0.13]</div> <div>FRACTIONS 1/32 ANGLES ± 1°</div> <div>CABLE LENGTH TOLERANCES: 512 [305] = +1 [25] / -0 &gt;12 [305] ≤ 60 [1524] = +2 [5] / -0 &gt;60 [1524] ≤ 120 [3048] = +4 [102] / -0 &gt;120 [3048] ≤ 300 [7620] = +6 [152] / -0 &gt;300 [7620] = +5% / -0</div>		<div></div> <div>INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5</div> <div>SCALE: NONE</div> <div>SHEET: 1 OF 1</div>	
<div>an INFINIT® brand</div> <div>Website: <a href="http://www.Pasternack.com">www.Pasternack.com</a></div> <div>Phone: 1.866.727.8376   1.949.261.1920</div>		<div>DESCRIPTION</div> <div>SMPS FEMALE RIGHT ANGLE TO SMA MALE CABLE USING PE-P047HF COAX</div>	
<div>ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY</div>		<div>CAGE CODE</div> <div>A 53919</div>	<div>DRAWN BY</div> <div>BPUCHASKI</div>
		<div>ITEM NO.</div> <div>PE3C9970-XXX</div>	<div>REV</div> <div>A</div>