PASTERNACK
an INFINITE brand

SMPS Female to 1.85mm Male Cable Using PE-P047HF Coax

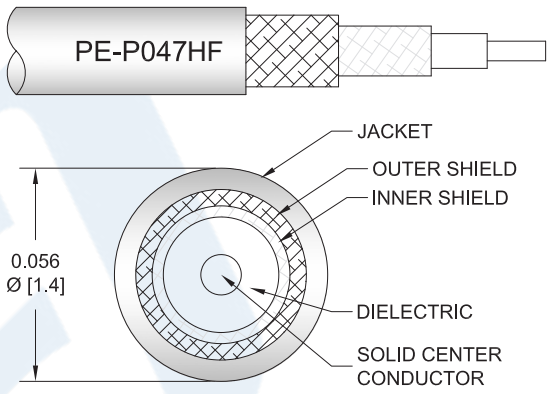
TECHNICAL DATA SHEET PE3C9956

Configuration

- Connector 1: SMPS Female
- Connector 2: 1.85mm Male
- Cable Type: PE-P047HF
- Coax Flex Type: Flexible

Features

- Max Frequency 40 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 PE3C9956 SMPS female to 1.85mm 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 1.85mm cable assembly has a female to male gender configuration with 50 ohm flexible PE-P047HF coax. The PE3C9956 SMPS female to 1.85mm male cable assembly operates to 40 GHz. 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 to 1.85mm Male Cable Using PE-P047HF Coax PE3C9956

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

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
VSWR			1.41:1	
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	20000	40000	MHz	
PE3C9956	Custom Lengths Available	Insertion Loss (Typ.)	0.55	0.8	1.17	1.78	2.77	dB/ft	
			1.81	2.63	3.84	5.84	9.09	dB/m	
PE3C9956-6	6 inch	Insertion Loss (Typ.)	0.5	0.72	1.03	1.52	2.28	dB	0.011
PE3C9956-12	12 inch	Insertion Loss (Typ.)	0.78	1.12	1.62	2.41	3.66	dB	0.013
PE3C9956-18	18 inch	Insertion Loss (Typ.)	1.05	1.52	2.2	3.3	5.05	dB	0.015

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:	0.1*SQRT(FGHz)	dB
Loss due to Connector 2:	0.04*SQRT(FGHz)	dB
Base Weight:	0.013	pounds
Additional Weight per Inch:	0.00033	pounds

Mechanical Specifications

Cable Assembly

Weight	0.013 lbs [5.9 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 Push-on	1.85mm 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	50 µin minimum
Dielectric Type	PTFE	PEI
Outer Conductor Material and Plating	Beryllium Copper, Gold	
Outer Conductor Plating Specification	50 µin minimum	
Body Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold over Nickel
Body Plating Specification	30 µin minimum	50 µin minimum
Coupling Nut Material and Plating		Passivated Stainless Steel
Coupling Nut Plating Specification		ASTM-A582

Environmental Specifications

Temperature

Operating Range	-55 to +165 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: **PE3C9956 - xx uu**

- uu — Unit of Measure: cm = Centimeters, <blank> = Inches
- xx — Length
- PE3C9956 — Base Number

Example: PE3C9956-12 = 12 inches long cable
PE3C9956-100cm = 100 cm long cable

SMPS Female to 1.85mm 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 to 1.85mm Male Cable Using PE-P047HF Coax PE3C9956

URL: https://www.pasternack.com/smps-female-to-1.85mm-male-cable-using-pe-p047hf-pe3c9956-p.aspx

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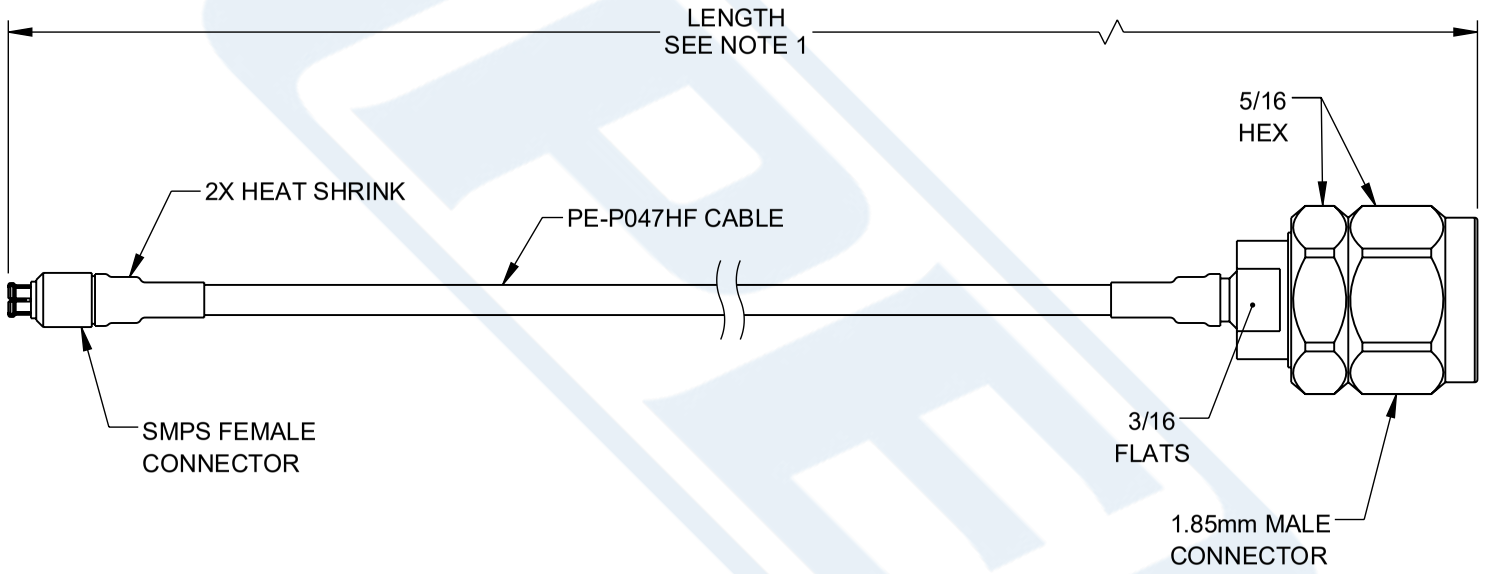
PE3C9956 REV 1.0

PE3C9956 CAD Drawing

SMPS Female to 1.85mm Male Cable Using PE-P047HF Coax

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



NOTES:

1. CABLE ASSEMBLY LENGTH DETERMINED BY P/N AS ILLUSTRATED:
   PE3C9956-XXX (-XXX = LENGTH IN INCHES)
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY

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

TOLERANCES:

.X = ±.2 [5]	FRACTIONS
.XX = ±.02 [0.5]	± 1/32
.XXX = ±.005 [0.13]	ANGLES ± 1°

CABLE LENGTH TOLERANCES:

≤12 [305] = +1 [25] / -0
>12 [305] ≤ 60 [1524] = +2 [51] / -0
>60 [1524] ≤ 120 [3048] = +4 [102] / -0
>120 [3048] ≤ 300 [7620] = +6 [152] / -0
>300 [7620] = +5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE.
UN-DIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION
COLORS MAY VARY

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE	SHEET
NONE	1 OF 1

DESCRIPTION
SMPS FEMALE TO 1.85mm MALE CABLE USING PE-P047HF COAX

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	BPUCHASKI	PE3C9956-XXX	A

T-Rev.D3