



2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax

RF Cable Assemblies Technical Data Sheet

PE3C5984

Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Male
- Cable Type: PE-P086HF

Features

- Max Frequency 40 GHz
- 70% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C5984 2.4mm male to 2.4mm male cable using PE-P086HF 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 male to male gender configuration with 50 ohm flexible PE-P086HF coax. The PE3C5984 2.4mm male to 2.4mm male cable assembly operates to 40 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness.

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 Male to 2.4mm Male Cable Using PE-P086HF Coax PE3C5984](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
VSWR			1.5:1	
Velocity of Propagation		70		%
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Operating Voltage (AC)			335	Vrms
Dielectric Withstanding Voltage (AC)			1,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	2.5	5	10	20	40	GHz
Insertion Loss (Typ.)	0.312	0.457	0.675	1	1.548	dB
	1.02	1.5	2.21	3.28	5.08	

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]
Weight	0.029 lbs [13.15 g]

Cable

Cable Type	PE-P086HF
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel, 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	0.104 in [2.64 mm]
One Time Minimum Bend Radius	0.52 in [13.21 mm]

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Connectors

Description	Connector 1	Connector 2
Type	2.4mm Male	2.4mm Male
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	500
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PEI	PEI
Body Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Body Plating Specification	50 µin minimum	50 µin minimum
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	ASTM-A582	ASTM-A582
Hex Size	5/16 inch	5/16 inch
Torque	8 in-lbs [0.9 Nm]	8 in-lbs [0.9 Nm]

Environmental Specifications

Temperature

Operating Range -65 to +150 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:

PE3C5984

- **xx**

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

Example: PE3C5984-12 = 12 inches long cable
PE3C5984-100cm = 100 cm long cable

2.4mm Male to 2.4mm Male Cable Using PE-P086HF 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 Male to 2.4mm Male Cable Using PE-P086HF Coax PE3C5984](https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-using-pe-p086hf-pe3c5984-p.aspx)

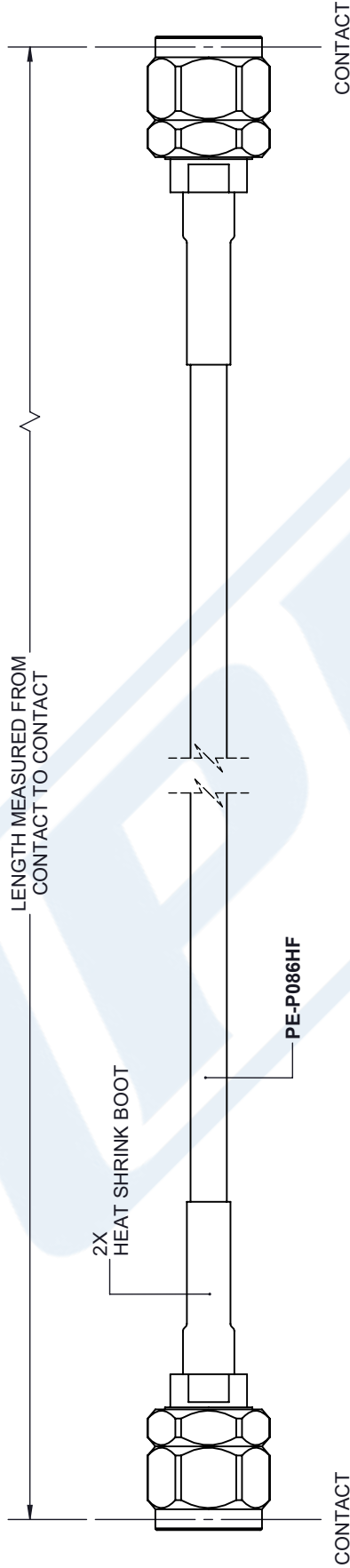
URL: <https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-using-pe-p086hf-pe3c5984-p.aspx>

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.

PE3C5984 CAD Drawing

2.4mm Male to 2.4mm Male Cable Using PE-P086HF Coax

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	11/5/2021
		APPROVED A. GANWANI



2.4mm MALE

2.4mm MALE

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

TOLERANCES:

.X = ±.2	[.008]	FRACTIONS	± 1/32
.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%L / -0	

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITE brand

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SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	K.DANG	PE3C5984

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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