



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

### RF Cable Assemblies Technical Data Sheet

PE3C7803

#### 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

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3C7803 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 PE3C7803 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 PE3C7803](#)



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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]

#### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	2.5	5	10	20	40	GHz
Insertion Loss (Typ.)	0.31	0.45	0.67	1	1.55	dB/ft
	1.02	1.48	2.2	3.28	5.09	dB/m

#### Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. The Insertion Loss includes an estimated insertion loss of  $0.05 \cdot \sqrt{\text{FGHz}}$  dB per connector loss.

#### Mechanical Specifications

##### Cable Assembly

Diameter 0.314 in [7.98 mm]

##### 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]

Repeated 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
Contact Material and Plating	Beryllium Copper, Gold over Nickel	Beryllium Copper, Gold over Nickel
Contact Plating Specification	4μ in Min	4μ in Min
Dielectric Type	Oxide Noryl	Oxide Noryl
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Hex Size	5/16 inch	5/16 inch

**Environmental Specifications**

**Temperature**

Operating Range

-55 to +200 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:

**PE3C7803**

- **xx**

**uu**

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

Example: PE3C7803-12 = 12 inches long cable  
PE3C7803-100cm = 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 PE3C7803](https://www.pasternack.com/2.4mm-male-2.4mm-male-pe-p086hf-cable-assembly-pe3c7803-p.aspx)

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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.

# PE3C7803 CAD Drawing

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

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	4/13/2021
		APPROVED
		S. ELLIS



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

**TOLERANCES:**

.X = ±.2	[5.08]	FRACTIONS	
.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.

**THIRD-ANGLE PROJECTION**

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SCALE N/A

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SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	K. DANG	PE3C7803
			REV
			A

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