



2.4mm Male to 2.4mm Male Cable Using PE-P103 Coax

TECHNICAL DATA SHEET

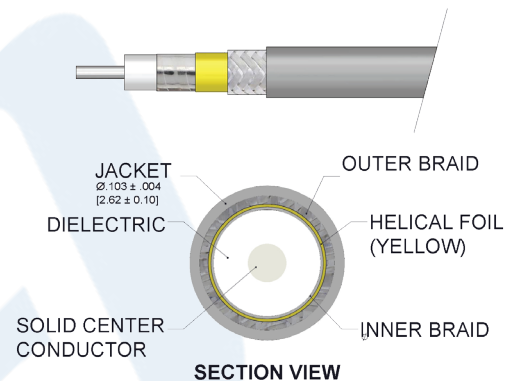
PE3C6640/SP

Configuration

- Connector 1: 2.4mm Male
- Connector 2: 2.4mm Male
- Cable Type: PE-P103
- Coax Flex Type: Flexible

Features

- Max Frequency 50 GHz
- Shielding Effectivity > 90 dB
- 76% Phase Velocity
- Triple Shielded
- ETFE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C6640/SP 2.4mm male to 2.4mm male cable using PE-P103 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-P103 coax. The PE3C6640/SP 2.4mm male to 2.4mm male cable assembly operates to 50 GHz. The triple 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: [2.4mm Male to 2.4mm Male Cable Using PE-P103 Coax PE3C6640/SP](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		50	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	90			dB
Capacitance		26 [85.3]		pF/ft [pF/m]
Inductance		65 [213.25]		uH/ft [uH/m]
Input Power (Peak)			550	Watts

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	2500	5000	10000	20000	50000	MHz	
PE3C6640/SP	Custom Lengths Available	Insertion Loss (Typ.)	0.4	0.57	0.83	1.223	2.064	dB/ft	
			1.3	1.88	2.73	4.02	6.78	dB/m	
PE3C6640/SP-12	12 inch	Insertion Loss (Typ.)	0.55	0.71	0.95	1.31	1.91	dB	0.044
PE3C6640/SP-24	24 inch	Insertion Loss (Typ.)	0.72	0.96	1.32	1.86	2.76	dB	0.056
PE3C6640/SP-36	36 inch	Insertion Loss (Typ.)	0.89	1.21	1.69	2.42	3.61	dB	0.068
PE3C6640/SP-48	48 inch	Insertion Loss (Typ.)	1.24	1.71	2.43	3.52	5.31	dB	0.08
PE3C6640/SP-60	60 inch	Insertion Loss (Typ.)	1.58	2.22	3.18	4.63	7.02	dB	0.092

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 dB
Loss due to Connector 2:	0.1 dB
Base Weight:	0.044 pounds
Additional Weight per Inch:	0.001 pounds

Mechanical Specifications

Cable Assembly

Weight 0.044 lbs [19.96 g]

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Cable

Cable Type	PE-P103
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper
Shield Layer 2	Conductive Tape
Shield Layer 3	Silver Plated Copper
Jacket Material	ETFE, Gray
Jacket Diameter	0.103 in [2.62 mm]
One Time Minimum Bend Radius	0.32 in [8.13 mm]
Repeated Minimum Bend Radius	0.96 in [24.38 mm]
Typical Flex Cycles	50,000

Connectors

Description	Connector 1	Connector 2
Type	2.4mm Male Threaded	2.4mm Male Threaded
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Beryllium Copper, Gold
Contact Plating Specification	ASTM-B488 50µ In. Min	ASTM-B488 50µ In. Min
Dielectric Type	PPO	PPO
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Body Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Plating Specification	SAE-AMS-2700	SAE-AMS-2700
Hex Size	5/16 Inch	5/16 Inch
Torque	8 in-lbs [0.9 Nm]	8 in-lbs [0.9 Nm]

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

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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How to Order

Part Number Configuration:

PE3C6640/SP

- **xx**

uu

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

Example: PE3C6640/SP-12 = 12 inches long cable
PE3C6640/SP-100cm = 100 cm long cable

2.4mm Male to 2.4mm Male Cable Using PE-P103 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.

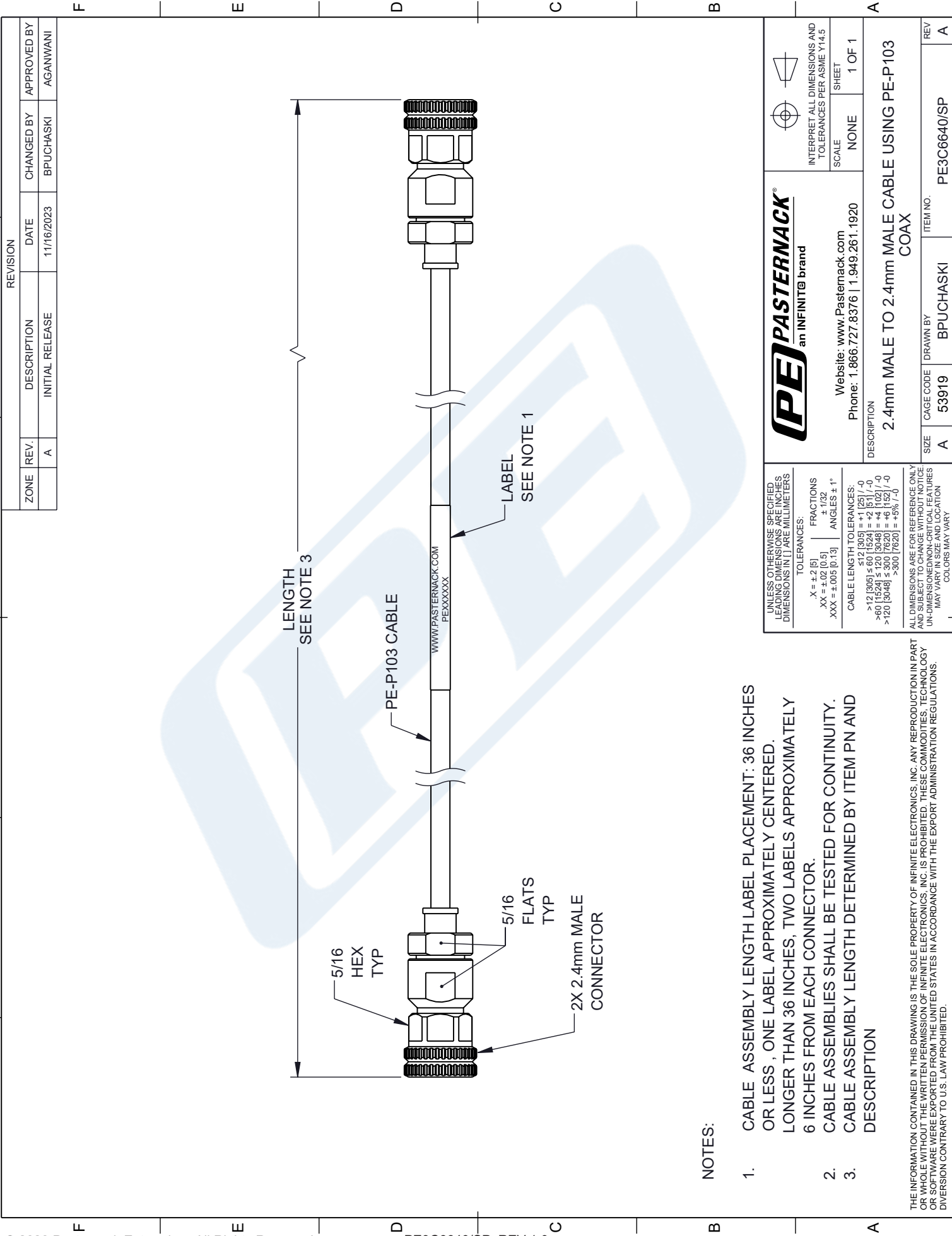
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male to 2.4mm Male Cable Using PE-P103 Coax PE3C6640/SP](https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-using-pe-p103-pe3c6640-sp-p.aspx)

URL: <https://www.pasternack.com/2.4mm-male-to-2.4mm-male-cable-using-pe-p103-pe3c6640-sp-p.aspx>

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PE3C6640/SP CAD Drawing

2.4mm Male to 2.4mm Male Cable Using PE-P103 Coax




NOTES:

- 1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS , ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
- 2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.
- 3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION

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ZONE		REVISION		APPROVED BY	
REV.	DESCRIPTION	DATE	CHANGED BY	AGANWANI	
A	INITIAL RELEASE	11/16/2023	BPUCHASKI		

 an INFINIT@ brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE	SHEET
DESCRIPTION 2.4mm MALE TO 2.4mm MALE CABLE USING PE-P103 COAX		NONE	1 OF 1
SIZE A	CAGE CODE 53919	DRAWN BY BPUCHASKI	ITEM NO. PE3C6640/SP
		REV A	

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN [] ARE MILLIMETERS.	
TOLERANCES:	FRACTIONS
.X = ±.2 [5]	± 1/32
.XX = ±.02 [0.5]	± 1/64
.XXX = ±.005 [0.13]	± .005
ANGLES ± 1°	
CABLE LENGTH TOLERANCES:	
≤ 12 [305] = ±.125 [-0.001 / +0.001]	
>12 [305] ≤ 30 [762] = ±.25 [-0.001 / +0.001]	
>30 [762] ≤ 120 [3048] = ±.5 [-0.001 / +0.001]	
>120 [3048] ≤ 300 [7620] = ±1.0 [-0.001 / +0.001]	
>300 [7620] = ±5% / -0	
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.	