



JACKET

OUTER SHIELD

**INNER SHIELD** 

DIELECTRIC

SOLID CENTER

CONDUCTOR

# **RF Cable Assemblies Technical Data Sheet**

# PE3CA1040-24

# Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male Right Angle
- Cable Type: PE-086FLEX

## Features

- Max Frequency 27 GHz
- Shielding Effectivity > 90 dB
- 69.5% Phase Velocity
- Double Shielded
- FEP Jacket
- 500 Mating Cycles
- Design operates to 27 GHz Shielding effectivity > 90dB One time minimum bend radius: 0.4 inch Typical SMA VSWR 1.24:1 to 27 GHz

# Applications

- General Purpose
- Laboratory Use
- High Performance RF equipment
  interconnect
- Flexible in cabinet or in the rack requirements

PE-086FLEX

0.104

Ø [2.6]

General purpose lighter duty lab use

Inside the box RF routing

## Description

Pasternack's PE3CA1040-24 SMA male to SMA male right angle 24 inch cable using PE-086FLEX 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 SMA to SMA cable assembly has a male to male gender configuration with 50 ohm flexible PE-086FLEX coax. The PE3CA1040-24 SMA male to SMA male cable assembly operates to 27 GHz. The right angle SMA interface on the PE-086FLEX 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. These new high performance flexible cables are made using our PE-086FLEX coax and our new low profile connectors. The high performance flexible design is well suited for connecting RF devices in rack-mount systems, inside RF equipment and for general lab hookup where a more expensive test cable is not required. These cables are similar to the PE30X series which have retractable coupling nuts and thick wall SMA connectors. The heavier duty PE35X test series cables have similar performance, but include a heavy duty strain relief mechanism and extra booting material as well as a thick wall SMA connector to increase the ruggedness of the PE35X cables for use in more demanding test environments.

PE-086FLEX is a flexible cable alternate to Semi Rigid coax and has a solid PTFE resulting in a 69.5% phase velocity. The smooth wall formed by the Braid over Spiral Ribbon design allows for a flexible cable that has similar performance to a solid wall 086 Semi Rigid (RG405) cable.

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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: SMA Male to SMA Male Right Angle Cable 24 Inch Length Using PE-086FLEX Coax, RoHS PE3CA1040-24

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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labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		27	GHz
VSWR			1.4:1	
Return Loss			15.56	dB
Velocity of Propagation		69.5		%
RF Shielding	90			dB
Group Delay		1.47 [4.82]		ns/ft [ns/m]
Capacitance		29.4 [96.46]		pF/ft [pF/m]
Operating Voltage (AC)			250	Vrms

#### Specifications by Frequency

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Description	F1	F2	F3	F4	F5	Units
Frequency	3	6	12	18	27	GHz
Insertion Loss (Max.)	1.04	1.5	2.18	2.72	3.35	dB
VSWR (Max.)	1.08:1	1.12:1	1.2:1	1.3:1	1.4:1	
Power Handling (Max.)	81	50	40	33	26	W

### **Mechanical Specifications**

#### **Cable Assembly**

Length\* Weight

### Cable

Cable Type Impedance Inner Conductor Type Inner Conductor Material and Plating Dielectric Type Number of Shields Shield Layer 1 Shield Layer 2 Outer Conductor 1 Material and Plating Outer Conductor 2 Material and Plating 24 in [609.6 mm] 0.05 lbs [22.68 g]

PE-086FLEX 50 Ohms Solid Copper Clad Steel, Silver PTFE 2 Silver Plated Copper Tape Silver Plated Copper Braid Silver Plated Copper Tape Silver Plated Copper Braid

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Jacket Material Jacket Diameter

One Time Minimum Bend Radius Repeated Minimum Bend Radius

FEP 0.104 in [2.64 mm]

0.23 in [5.84 mm] 0.78 in [19.81 mm]

#### Connectors

Description	Connector 1	Connector 2 SMA Male Right Angle	
Туре	SMA Male		
Impedance	50 Ohms	50 Ohms	
Mating Cycles	500	500	
Contact Material and Plating	Brass, Gold	Brass, Gold	
Dielectric Type	PTFE	PTFE	
Body Material and Plating	Stainless Steel, Gold	Stainless Steel, Gold	
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel	
Hex Size	5/16 Inch	5/16 Inch	

#### **Environmental Specifications**

Temperature

**Operating Range** 

-40 to +150 deg C

Compliance Certifications (see product page for current document)

#### **Plotted and Other Data**

Notes:

• Values at 25°C, sea level.

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# PE3CA1040-24



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PE3CA1040-24

#### **PE3CA1040-24 VSWR** 1.5 1.4 ---Maximum Typical 1.3 VSWR. dB 1.2 1.1 مساليصينا ليشالك فالكموسي ومستعمل الأر 1 9 10 13 14 15 17 18 19 20 21 22 23 27 1 2 3 5 6 7 8 11 12 16 24 25 26 Frequency (GHz) PE3CA1040-24 Insertion Loss (dB) 0.5 ---Maximum Typical -0.5 dB -1.5 -2.5 -3.5 2 6 10 12 14 16 18 20 22 24 26 4 8 Frequency (GHz)

Typical Performance Data

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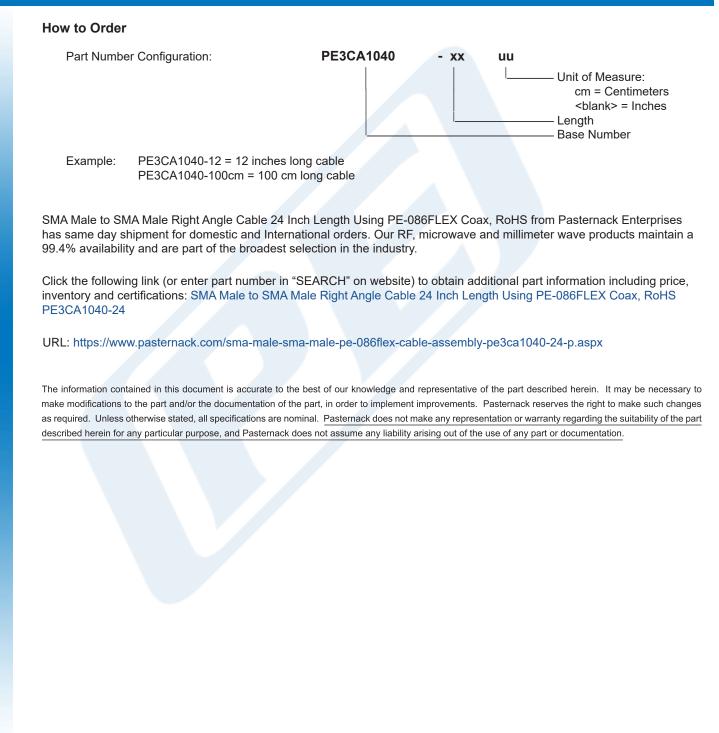
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# PE3CA1040-24 CAD Drawing SMA Male to SMA Male Right Angle Cable 24 Inch

Length Using PE-086FLEX Coax, RoHS

