



SMA Male to SMA Male Right Angle Cable 100 cm Length Using PE-086FLEX Coax, RoHS

RF Cable Assemblies Technical Data Sheet

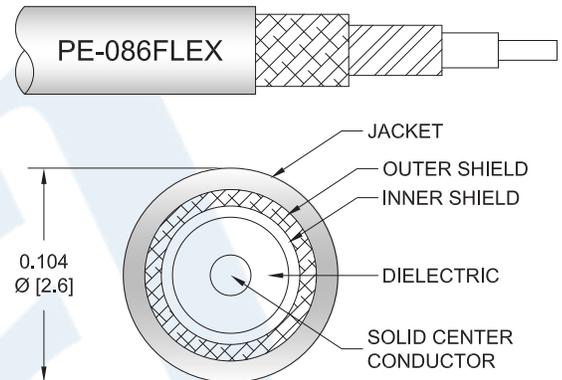
PE3CA1040-100CM

**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
- Inside the box RF routing
- General purpose lighter duty lab use

**Description**

Pasternack's PE3CA1040-100CM SMA male to SMA male right angle 100 cm 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 PE3CA1040-100CM 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 100 cm Length Using PE-086FLEX Coax, RoHS PE3CA1040-100CM](#)



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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

Description	F1	F2	F3	F4	F5	Units
Frequency	3	6	12	18	27	GHz
Insertion Loss (Max.)	1.63	2.35	3.38	4.25	5.2	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\* 39.37 in [100 cm]

Weight 0.068 lbs [30.84 g]

##### Cable

Cable Type PE-086FLEX  
 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  
 Outer Conductor 1 Material and Plating Silver Plated Copper Tape  
 Outer Conductor 2 Material and Plating Silver Plated Copper Braid

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Jacket Material	FEP
Jacket Diameter	0.104 in [2.64 mm]
One Time Minimum Bend Radius	0.23 in [5.84 mm]
Repeated Minimum Bend Radius	0.78 in [19.81 mm]

**Connectors**

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male Right Angle
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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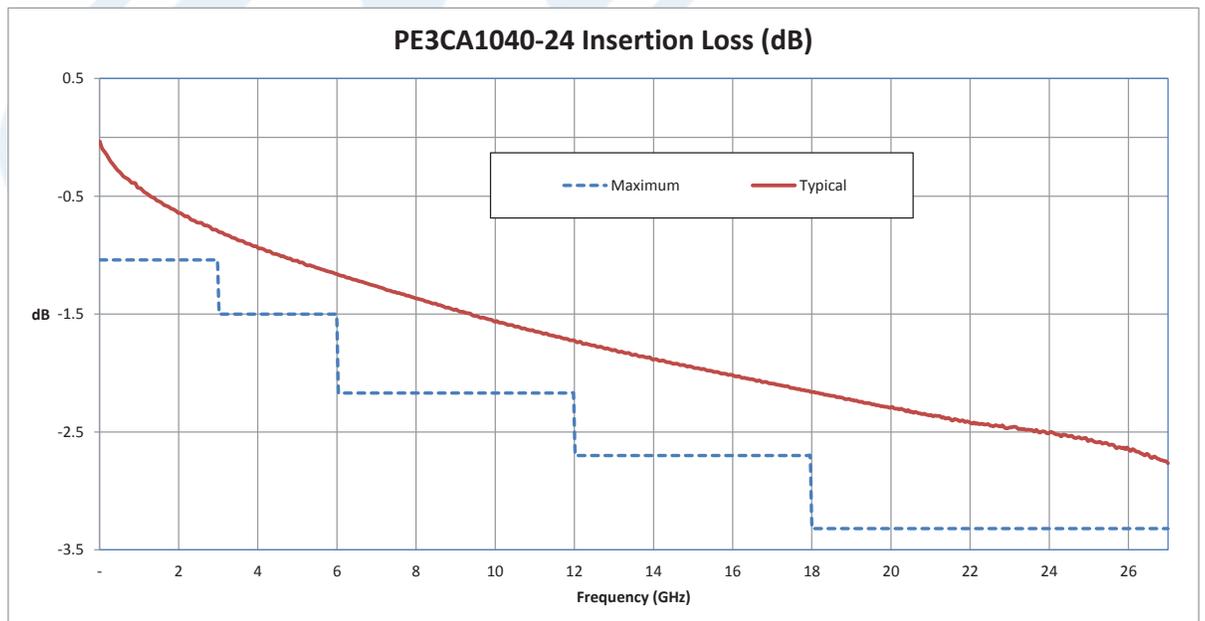
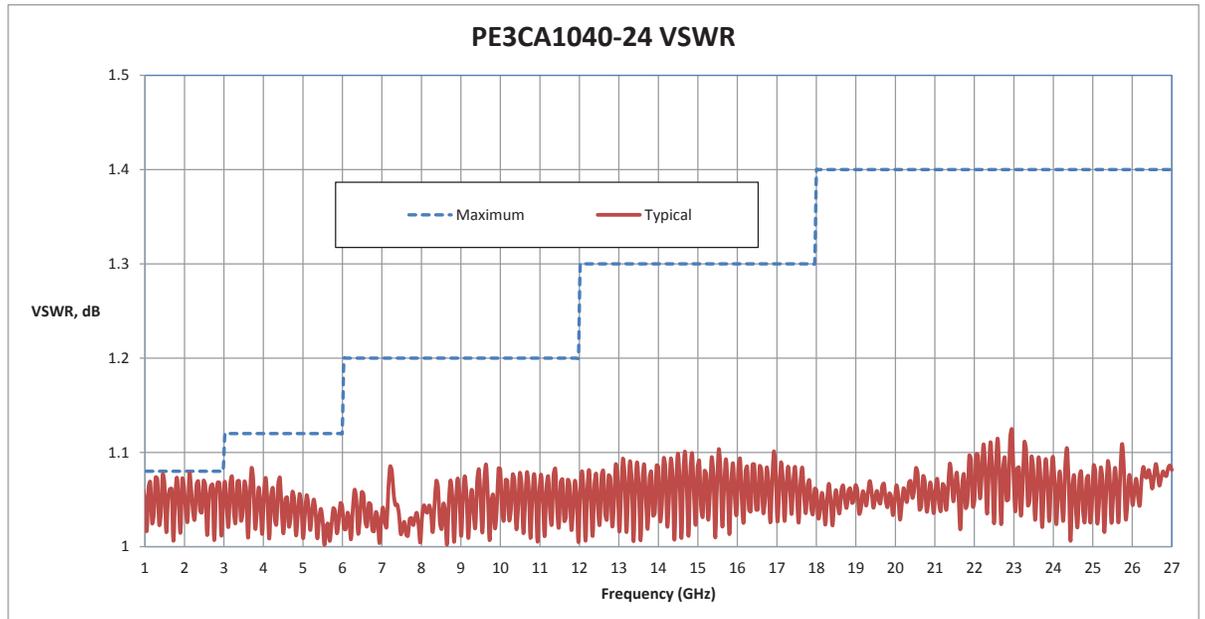


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Typical Performance Data



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**How to Order**

Part Number Configuration:

**PE3CA1040**

- **xx**

**uu**

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

Example: PE3CA1040-12 = 12 inches long cable  
PE3CA1040-100cm = 100 cm long cable

SMA Male to SMA Male Right Angle Cable 100 cm Length Using PE-086FLEX Coax, RoHS 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.

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URL: <https://www.pasternack.com/sma-male-sma-male-pe-086flex-cable-assembly-pe3ca1040-100cm-p.aspx>

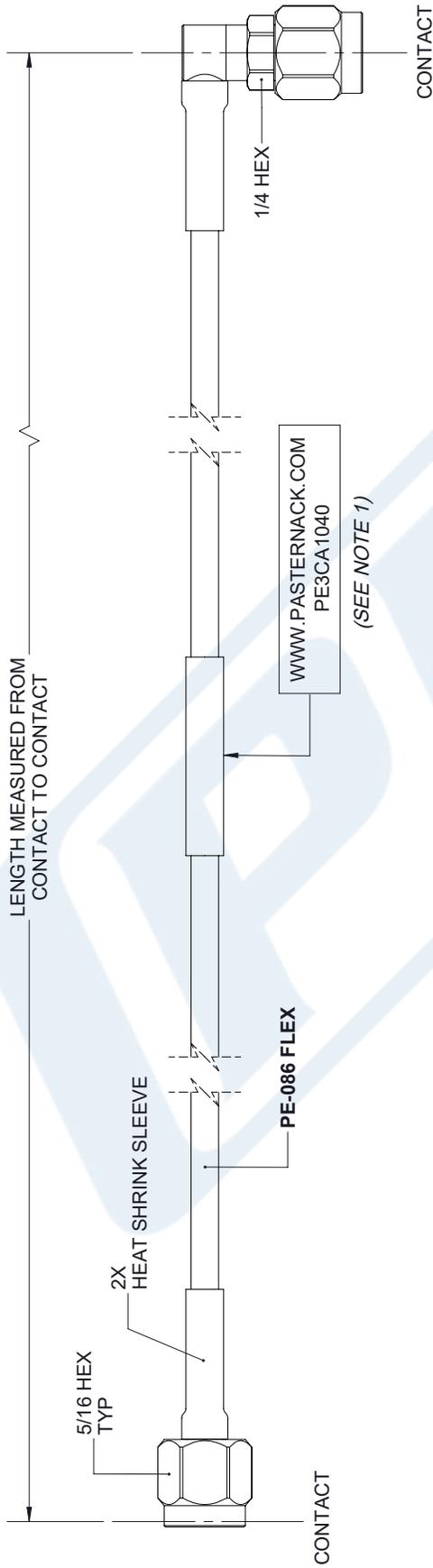
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such 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.

# PE3CA1040-100CM CAD Drawing

## SMA Male to SMA Male Right Angle Cable 100 cm

### Length Using PE-086FLEX Coax, RoHS

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	8/12/2020	S. ELLIS



**SMA MALE**

**SMA MALE  
RA**

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
.X = ±.2	[ 5/64 ] ± 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.	

**PASTERNAK**  
an INFINITI brand

Pasternack Enterprises, Inc.  
P. O. Box 16759, Irvine, CA 92623.  
Phone: 1.949.261.1920 | 1.866.727.8376  
Fax: 1.949.261.7451  
Website: www.pasternack.com  
E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO	REV
A	53919	K.DANG	PE3CA1040	A

**NOTES:**

- CABLES 36" AND UNDER HAVE 1 LABEL CENTERED. CABLES OVER 36" HAVE 2 LABELS, ONE AT EACH END 6.0" FROM THE END OF THE CONNECTOR.

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