



SMA Female to SMA Male Right Angle Cable 50 cm Length Using RG174 Coax

RF Cable Assemblies Technical Data Sheet

PE3W03981-50CM

Configuration

- Connector 1: SMA Female
- Connector 2: SMA Male Right Angle
- Cable Type: RG174

Features

- Max Frequency 1 GHz
- 66% Phase Velocity
- PVC Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W03981-50CM SMA female to SMA male right angle 50 cm cable using RG174 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 female to male gender configuration with 50 ohm flexible RG174 coax. The PE3W03981-50CM SMA female to SMA male cable assembly operates to 1 GHz. The right angle SMA interface on the RG174 cable allows for easier connections in tight spaces.

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.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		1,000	MHz
VSWR			1.4:1	
Velocity of Propagation		66		%
Capacitance		31.1 [102.03]		pF/ft [pF/m]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Female to SMA Male Right Angle Cable 50 cm Length Using RG174 Coax PE3W03981-50CM](#)



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Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	50	100	250	500	1,000	MHz
Insertion Loss (Max.)	0.437	0.501	0.611	0.824		dB

Electrical Specification Notes:

The Insertion Loss data above is based on the performance specifications of the coax use in this assembly. The Insertion Loss includes an estimated insertion loss of 0.3dB of connector Loss

Mechanical Specifications

Cable Assembly

Length*	19.68 in [499.87 mm]
Diameter	0.315 in [8 mm]

Cable

Cable Type	RG174
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PE
Number of Shields	1
Shield Layer 1	Tinned Copper Braid
Jacket Material	PVC, Black
Jacket Diameter	0.11 in [2.79 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Female	SMA Male Right Angle
Specification	MIL-STD-348A	MIL-STD-348A
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	50µ in. minimum	50 µin minimum
Dielectric Type	Teflon	PTFE
Outer Conductor Material and Plating	Brass, Gold	
Outer Conductor Plating Specification	3µ in. minimum	
Body Material and Plating	Brass, Gold	Brass, Nickel
Body Plating Specification	3µ in. minimum	100 µin minimum
Coupling Nut Material and Plating		Brass, Nickel
Coupling Nut Plating Specification		100 µin minimum
Hex Size		5/16 inch
Torque		3 in-lbs [0.34 Nm]

Mechanical Specification Notes:

*All cable assemblies have a length tolerance of 1.5% or $\pm 3/8"$, whichever is greater.

Environmental Specifications

Temperature

Operating Range

-40 to +80 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:

PE3W03981

- **xx**

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

Example: PE3W03981-12 = 12 inches long cable
PE3W03981-100cm = 100 cm long cable

SMA Female to SMA Male Right Angle Cable 50 cm Length Using RG174 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.

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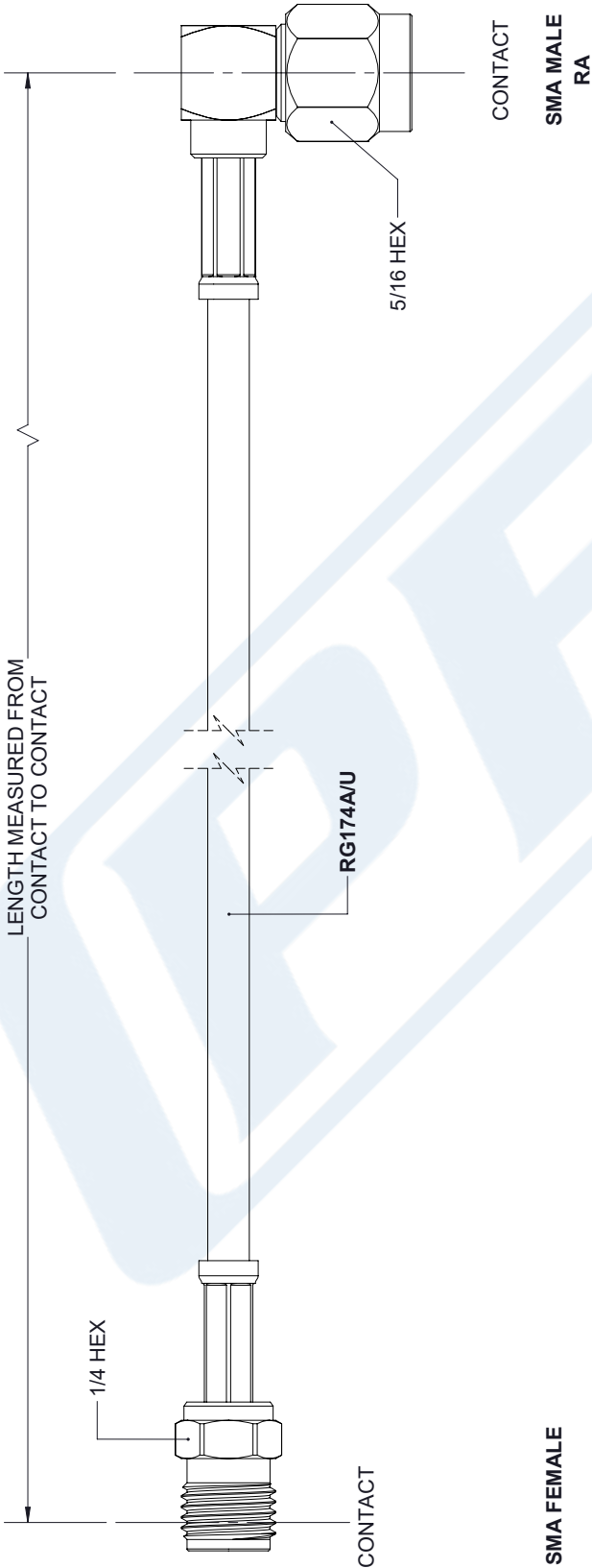
URL: <https://www.pasternack.com/sma-female-sma-male-rg174au-cable-assembly-pe3w03981-50cm-p.aspx>

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.

PE3W03981-50CM CAD Drawing

SMA Female to SMA Male Right Angle Cable 50 cm Length Using RG174 Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/23/19	SELLIS



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
X±.2 [5.08]	±.132
.XX±.01 [.25]	±.132
.XXX±.005 [.13]	ANGLES ± 1°
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

PE 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 www.pasternack.com e-mail: sales@pasternack.com	
SIZE	A
CAGE	53919
DRAWN BY	K.DANG
PART NUMBER	PE3W03981
REV	A

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SHEET	1 OF 1
SCALE	N/A

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