



SMA Male to SMA Male Cable Using RG316 Coax

RF Cable Assemblies Technical Data Sheet

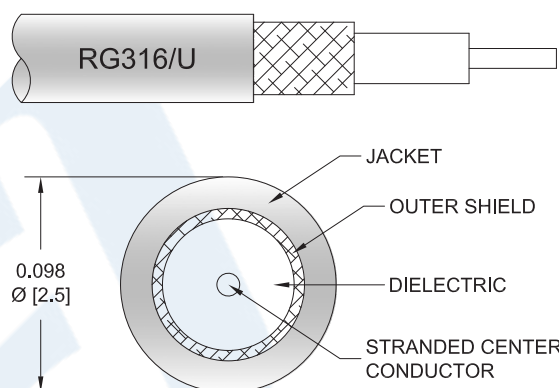
PE3C1820

Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: RG316

Features

- Max Frequency 3 GHz
- 69% Phase Velocity
- FEP Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3C1820 SMA male to SMA male cable using RG316 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 RG316 coax. The PE3C1820 SMA male to SMA male cable assembly operates to 3 GHz.

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: [SMA Male to SMA Male Cable Using RG316 Coax PE3C1820](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		3	GHz
Velocity of Propagation		69		%
Operating Voltage (AC)			375	Vrms
Jacket Spark			2,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.25	0.5	1	3	GHz
Insertion Loss (Typ.)	0.082	0.128	0.194	0.29	0.535	dB
	0.27	0.42	0.64	0.95	1.76	

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as $0.1 \times \sqrt{\text{FGHz}}$ dB per connector.

Mechanical Specifications

Cable Assembly

Length*	0 in [0 mm]
Weight	0.03 lbs [13.61 g]

Cable

Cable Type	RG316
Impedance	50 Ohms
Inner Conductor Type	Stranded
Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Number of Shields	1
Shield Layer 1	Silver Plated Copper Braid
Jacket Material	FEP, Tan
Jacket Diameter	0.102 in [2.59 mm]

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Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Dielectric Type	Teflon	Teflon
Body Material and Plating	Stainless Steel	Stainless Steel
Coupling Nut Material and Plating	Stainless Steel	Stainless Steel

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

Plotted and Other Data

Notes:

How to Order

Part Number Configuration:

PE3C1820

- **xx**

uu

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

Example: PE3C1820-12 = 12 inches long cable
PE3C1820-100cm = 100 cm long cable

SMA Male to SMA Male Cable Using RG316 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.

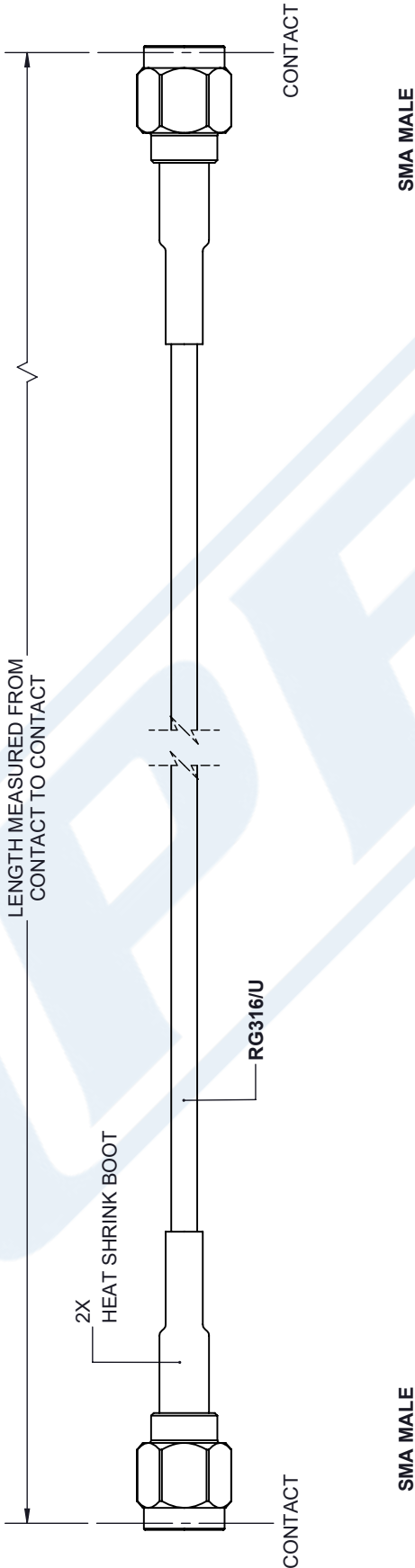
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URL: <https://www.pasternack.com/sma-male-to-sma-male-cable-using-rg316-pe3c1820-p.aspx>

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.

PE3C1820 CAD Drawing
SMA Male to SMA Male Cable Using RG316 Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	11/5/2021	A. GANWANI



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

TOLERANCES:

X = ± .2	[.008]	FRACTIONS	± 1/32
.XX = ± .02	[.51]	ANGLES	± 1°
.XXX = ± .005	[.13]	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%	/ -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITE brand

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SHEET 1 OF 1

SCALE N/A

REV A

ITEM NO. PE3C1820

DRAWN BY K.DANG

CAGE CODE 53919

SIZE A

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