

SMA Male to SMA Male Non-Magnetic Cable Using PE-SR141-NM Coax

PE3W20175



Configuration

- Connector 1: SMA Male
- Connector 2: SMA Male
- Cable Type: PE-SR141-NM
- Coax Flex Type: Semi-Rigid

Features

- Max Frequency 18 GHz
- Shielding Effectivity > 165 dB
- 69.5% Phase Velocity
- Copper Jacket

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W20175 SMA male to SMA male cable using PE-SR141-NM coax is part of our full line of RF components available for same-day shipping. Pasternack's semi-rigid RF cable assemblies are ideal for high performance applications and can be formed, using proper tooling, to the routing pattern required. This Pasternack SMA to SMA cable assembly has a male to male gender configuration with 50 ohm semi-rigid PE-SR141-NM coax. The PE3W20175 SMA male to SMA male cable assembly operates to 18 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.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR			1.4:1	
Velocity of Propagation		69.5		%
RF Shielding	165			dB

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	1000	2000	4500	9000	18000	MHz	
PE3W20175	Custom Lengths Available	Insertion Loss (Typ.)	0.11	0.152	0.259	0.403	0.636	dB/ft	
			0.37	0.5	0.85	1.33	2.09	dB/m	
PE3W20175-6	6 inch	Insertion Loss (Typ.)	0.26	0.28	0.33	0.41	0.52	dB	0.02
PE3W20175-12	12 inch	Insertion Loss (Typ.)	0.31	0.36	0.46	0.61	0.84	dB	0.029
PE3W20175-24	24 inch	Insertion Loss (Typ.)	0.42	0.51	0.72	1.01	1.48	dB	0.048
PE3W20175-36	36 inch	Insertion Loss (Typ.)	0.53	0.66	0.98	1.41	2.11	dB	0.066
PE3W20175-60	60 inch	Insertion Loss (Typ.)	0.75	0.96	1.5	2.22	3.38	dB	0.103

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:	0.029 pounds
Additional Weight per Inch:	0.00153 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.029 lbs [13.15 g]

Cable

Cable Type	PE-SR141-NM
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Silver Plated Copper
Dielectric Type	PTFE
Number of Shields	1
Outer Conductor 1 Material and Plating	Copper
Jacket Material	Copper
Repeated Minimum Bend Radius	0.25 in [6.35 mm]

Connectors

Description	Connector 1	Connector 2
Type	SMA Male	SMA Male
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Body Material and Plating	Brass, Gold over Nickel	Brass, Gold over Nickel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Hex Size	5/16 inch	5/16 inch
Torque	8 in-lbs 0.9 Nm	8 in-lbs 0.9 Nm

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Environmental Specifications

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

Plotted and Other Data

Notes:

Typical Performance Data

How to Order

Part Number Configuration:

PE3W20175 - xx uu

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

Example: PE3W20175-12 = 12 inches long cable
PE3W20175-100cm = 100 cm long cable

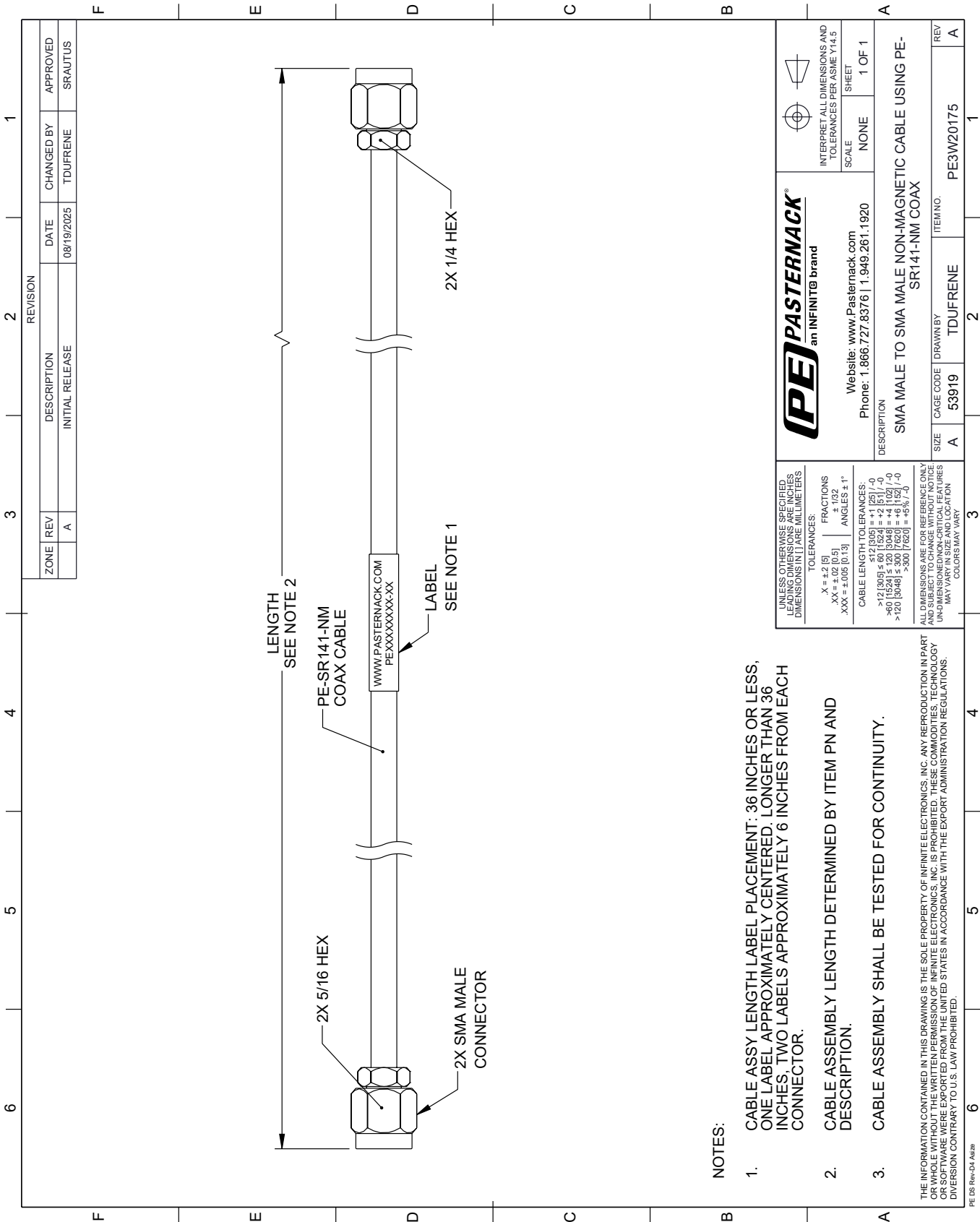
SMA Male to SMA Male Non-Magnetic Cable Using PE-SR141-NM Coax from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SMA Male to SMA Male Non-Magnetic Cable Using PE-SR141-NM Coax PE3W20175](#)

URL: <https://www.pasternack.com/sma-male-to-sma-male-cable-using-pe-sr141-nm-pe3w20175-p.aspx>

The information contained within 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 Enterprises reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack Enterprises does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack Enterprises does not assume liability arising out of the use of any part or document.

PE3W20175 CAD Drawing
SMA Male to SMA Male Non-Magnetic Cable Using PE-SR141-NM Coax



NOTES:

- 1. CABLE ASSY 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 ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.
- 3. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.

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PE D9 Rev-D4 Addn

REVISION			
ZONE	REV	DESCRIPTION	DATE
	A	INITIAL RELEASE	08/19/2025
			CHANGED BY
			TDUFRENE
			APPROVED
			SRAUTUS

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS		(PE) PASTERNAK® an INFINITO® brand		 	
TOLERANCES: X = ±.2 [5] XX = ±.02 [0.5] XXX = ±.005 [0.13] FRACTIONS: ± 1/32 ANGLES ± 1°				INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
CABLE LENGTH TOLERANCES: ≤ 12 [305] = ±.125 [-] > 12 [305] = ±.12 [305] ≤ 60 [1524] = ±.12 [3048] +.6 [-] > 60 [1524] = ±.12 [3048] +.6 [-] ≤ 120 [3048] = ±.12 [3048] +.6 [-] > 120 [3048] = ±.12 [3048] +.6 [-]		Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE NONE SHEET 1 OF 1	
DESCRIPTION		SMA MALE TO SMA MALE NON-MAGNETIC CABLE USING PE-SR141-NM COAX			
SIZE A	CAGE CODE 53919	DRAWN BY TDUFRENE	ITEM NO. PE3W20175	REV A	
ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE UNLESS OTHERWISE SPECIFIED IN DIMENSIONS MAY VARY IN SIZE AND LOCATION COLORS MAY VARY					