



## N Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink

### TECHNICAL DATA SHEET

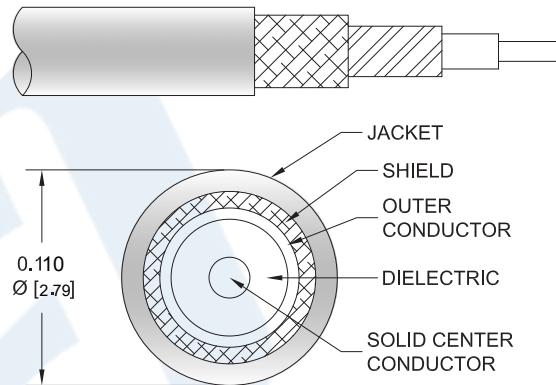
**PE3W00870/HS**

#### Configuration

- Connector 1: N Male
- Connector 2: SMA Male
- Cable Type: LMR-100A
- Coax Flex Type: Flexible

#### Features

- Max Frequency 1 GHz
- Shielding Effectivity > 90 dB
- 66% Phase Velocity
- Double Shielded
- PVC Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W00870/HS type N male to SMA male cable using LMR-100 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 type N to SMA cable assembly has a male to male gender configuration with 50 ohm flexible LMR-100A coax. The PE3W00870/HS type N male to SMA male cable assembly operates to 1 GHz. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

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: [N Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink PE3W00870/HS](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		1,000	MHz
VSWR			1.4:1	
Velocity of Propagation		66		%
RF Shielding	90			dB
Group Delay		1.54 [5.05]		ns/ft [ns/m]
Capacitance		30.8 [101.05]		pF/ft [pF/m]
Inductance		0.077 [0.25]		uH/ft [uH/m]
DC Resistance Inner Conductor		81 [265.75]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		9.5 [31.17]		Ω/1000ft [Ω/Km]
Jacket Spark			2,000	Vrms

#### Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	50	100	250	500	1000	MHz	
PE3W00870/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.04	0.06	0.12	0.17	0.24	dB/ft	
			0.13	0.21	0.38	0.55	0.79	dB/m	
PE3W00870/HS-24	24 inch	Insertion Loss (Typ.)	0.28	0.33	0.43	0.53	0.68	dB	0.09
PE3W00870/HS-36	36 inch	Insertion Loss (Typ.)	0.32	0.4	0.55	0.7	0.92	dB	0.099
PE3W00870/HS-48	48 inch	Insertion Loss (Typ.)	0.36	0.46	0.66	0.86	1.16	dB	0.108
PE3W00870/HS-100CM	100 cm	Insertion Loss (Typ.)	0.33	0.41	0.58	0.75	0.99	dB	0.102
PE3W00870/HS-200CM	200 cm	Insertion Loss (Typ.)	0.46	0.62	0.96	1.29	1.78	dB	0.132

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: 0.081 pounds  
Additional Weight per Inch: 0.00075 pounds

#### Mechanical Specifications

##### Cable Assembly

Weight 0.081 lbs [36.74 g]

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#### Cable

Cable Type	LMR-100A
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper Clad Steel
Dielectric Type	PE
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
Jacket Material	PVC, Black
Jacket Diameter	0.11 in [2.79 mm]

One Time Minimum Bend Radius	0.25 in [6.35 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]
Bending Moment	0.1 lbs-ft [0.14 N-m]
Flat Plate Crush	10 lbs/in [0.18 Kg/mm]
Tensile Strength	15 lbs [6.8 Kg]

#### Connectors

Description	Connector 1	Connector 2
Type	N Male Threaded	SMA Male Threaded
Specification	MIL-STD-348A	
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Contact Plating Specification	30 $\mu$ in minimum	15 $\mu$ in minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 $\mu$ in minimum	200 $\mu$ in minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	100 $\mu$ in minimum	200 $\mu$ in minimum

#### Environmental Specifications

##### Temperature

Operating Range

-40 to +85 deg C

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

#### Plotted and Other Data

Notes:

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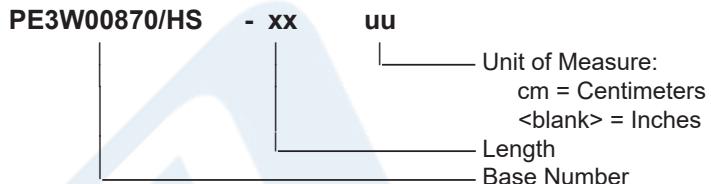
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#### How to Order

Part Number Configuration:



Example: PE3W00870/HS-12 = 12 inches long cable  
PE3W00870/HS-100cm = 100 cm long cable

N Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink 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/n-male-to-sma-male-low-loss-cable-using-lmr-100-with-heatshrink-pe3w00870-hs-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.

# PE3W00870/HS CAD Drawing

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