



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

TECHNICAL DATA SHEET

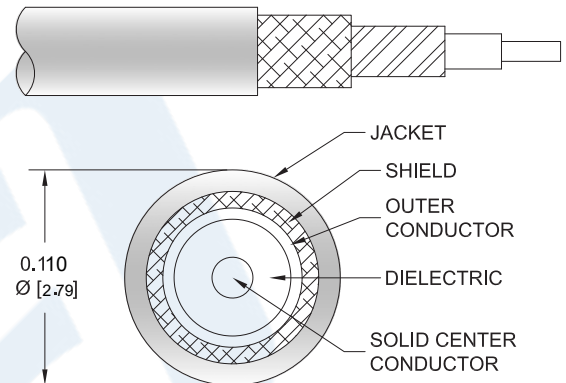
PE3W00870/HS

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](#)



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

TECHNICAL DATA SHEET

PE3W00870/HS

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]

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](#)



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

TECHNICAL DATA SHEET

PE3W00870/HS

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 µin minimum	15 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Body Plating Specification	100 µin minimum	200 µin minimum
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	100 µin minimum	200 µin minimum

Environmental Specifications

Temperature

Operating Range -40 to +85 deg C

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

Plotted and Other Data

Notes:

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](#)



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

TECHNICAL DATA SHEET

PE3W00870/HS

How to Order

Part Number Configuration:

PE3W00870/HS

- **xx**

uu

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

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.

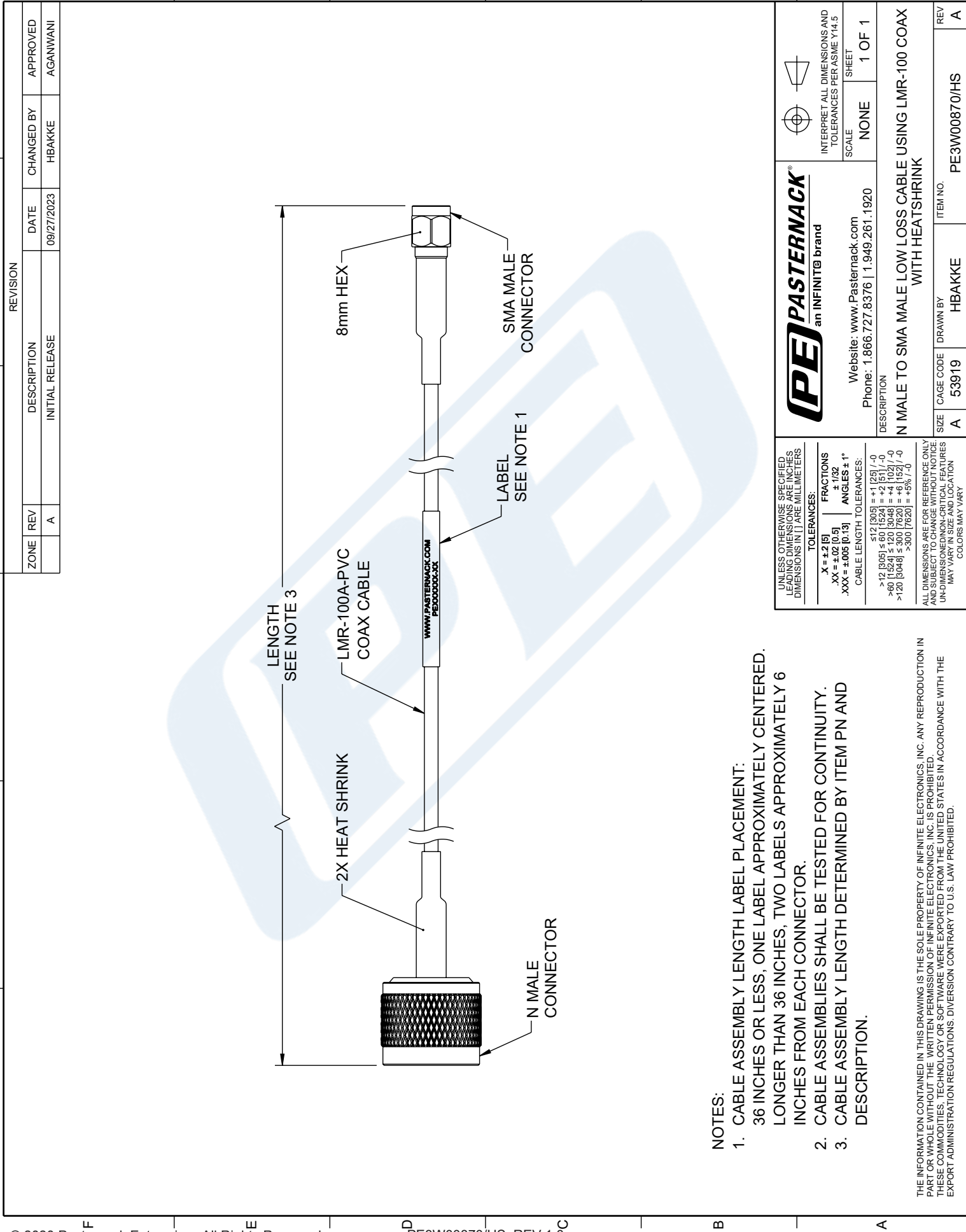
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to SMA Male Low Loss Cable Using LMR-100 Coax with HeatShrink PE3W00870/HS](#)

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

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



NOTES:

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

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES. DIMENSIONS IN [] ARE MILLIMETERS.		PE PASTERNAK an INFINITI® brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
TOLERANCES:		Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE NONE	
.X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		FRACTIONS ± 1/32 ANGLES ± 1°		SHEET 1 OF 1	
CABLE LENGTH TOLERANCES:		DESCRIPTION N MALE TO SMA MALE LOW LOSS CABLE USING LMR-100 COAX WITH HEATSHRINK			
<12 [305] = ±.1 [25] / -0 >12 [305] ≤ 60 [1524] = ±.2 [51] / -0 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0 >120 [3048] ≤ 300 [7620] = ±.6 [152] / -0 >300 [7620] = ±.5% / -0		ALL DIMENSIONS ARE FOR REFERENCE ONLY. ALL DIMENSIONS SHALL BE TO UNDIMENSIONED NON-CRITICAL FEATURES. UNLESS OTHERWISE SPECIFIED, DIMENSIONS MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.			
SIZE A		CAGE CODE 53919		ITEM NO. PE3W00870/HS	
DRAWN BY HBAKKE		REV A			