



N Male to N Female Low Loss Cable Using LMR-LW400 Coax

RF Cable Assemblies Technical Data Sheet

PE3W12949

Configuration

- Connector 1: N Male
- Connector 2: N Female
- Cable Type: LMR-LW400

Features

- Max Frequency 8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W12949 type N male to type N female cable using LMR-LW400 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 type N cable assembly has a male to female gender configuration with 50 ohm flexible LMR-LW400 coax. The PE3W12949 type N male to type N female cable assembly operates to 8 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 N Female Low Loss Cable Using LMR-LW400 Coax PE3W12949](#)



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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		8	GHz
VSWR			1.4:1	
Velocity of Propagation		84		%
RF Shielding	90			dB
Group Delay		1.2 [3.94]		ns/ft [ns/m]
Capacitance		23.9 [78.41]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		1.39 [4.56]		Ω/1000ft [Ω/Km]
DC Resistance Outer Conductor		6.1 [20.01]		Ω/1000ft [Ω/Km]
Jacket Spark			8,000	Vrms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	2	4	8	GHz
Insertion Loss (Typ.)	0.028	0.041	0.06	0.086	0.13	dB/ft
	0.09	0.13	0.2	0.28	0.43	dB/m

Electrical Specification Notes:

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB per connector.

Mechanical Specifications

Cable Assembly

Weight 0.196 lbs [88.9 g]

Cable

Cable Type LMR-LW400
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper
 Dielectric Type Foam PE
 Number of Shields 2
 Shield Layer 1 Aluminum Tape
 Shield Layer 2 Aluminum
 Jacket Material PE, Black
 Jacket Diameter 0.405 in [10.29 mm]

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One Time Minimum Bend Radius	1 in [25.4 mm]
Repeated Minimum Bend Radius	4 in [101.6 mm]
Bending Moment	0.5 lbs-ft [0.68 N-m]
Flat Plate Crush	40 lbs/in [0.71 Kg/mm]
Tensile Strength	160 lbs [72.57 Kg]

Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Phosphor Bronze, Gold
Contact Plating Specification	15 µin minimum	
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Material and Plating	Brass, Tri-Metal	
Hex Size	18 mm	

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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PE3W12949

How to Order

Part Number Configuration:

PE3W12949

- **xx**

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

Example: PE3W12949-12 = 12 inches long cable
PE3W12949-100cm = 100 cm long cable

N Male to N Female Low Loss Cable Using LMR-LW400 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.

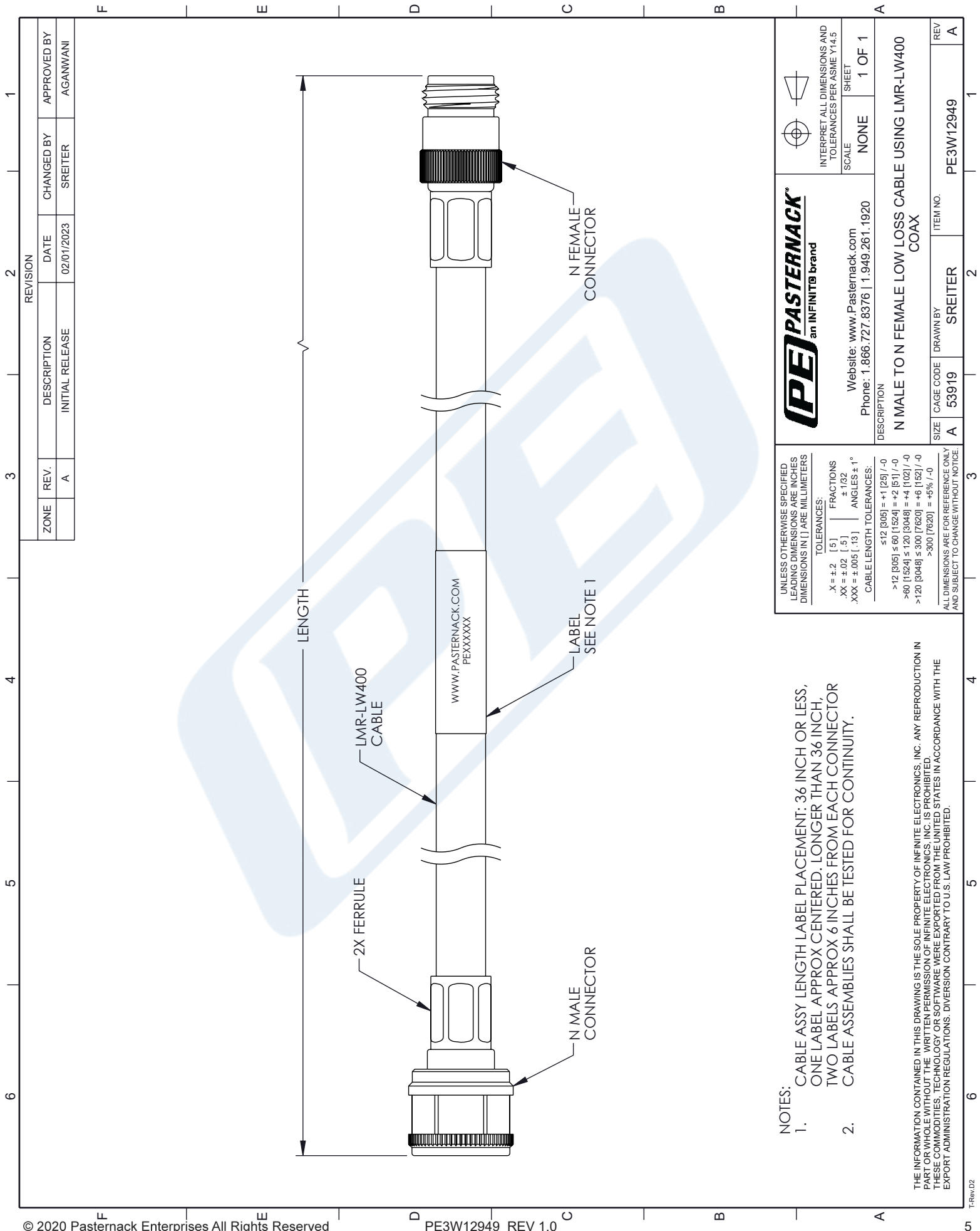
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male to N Female Low Loss Cable Using LMR-LW400 Coax PE3W12949](#)

URL: <https://www.pasternack.com/n-male-to-n-female-low-loss-cable-using-lmr-lw400-pe3w12949-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.

PE3W12949 CAD Drawing

N Male to N Female Low Loss Cable Using LMR-LW400 Coax



NOTES:

1. CABLE ASSY LENGTH LABEL PLACEMENT: 36 INCH OR LESS, ONE LABEL APPROX CENTERED. LONGER THAN 36 INCH, TWO LABELS APPROX 6 INCHES FROM EACH CONNECTOR
2. CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS	TOLERANCES: X = $\pm .2$ [5] XX = $\pm .02$ [.5] XXX = $\pm .005$ [.13] FRACTIONS $\frac{1}{2}$ $\frac{1}{32}$ ANGLES $\pm 1^\circ$
	CABLE LENGTH TOLERANCES: ≤ 125 [305] = ± 125 / -0 >125 [305] ≤ 600 [1524] = ± 25 [51] / -0 >600 [1524] ≤ 1200 [3048] = ± 44 [102] / -0 >1200 [3048] ≤ 3000 [7620] = ± 66 [162] / -0 >3000 [7620] = $\pm 45\%$ / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY
AND SUBJECT TO CHANGE WITHOUT NOTICE.

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Phone: 1.866.727.8376 | 1.949.261.1920

DESCRIPTION

N MALE TO N FEMALE LOW LOSS CABLE USING LMR-LW400 COAX

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	SREITER	PE3W12949	A

		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	SCALE NONE	SHEET 1 OF 1
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