

N Female Bulkhead to SMA Male Right Angle Low Loss Cable Using LMR-LW240 Coax with Times Microwave Components



PE3W14977

Configuration

- Connector 1: N Female Bulkhead
- Connector 2: SMA Male Right Angle
- Cable Type: LMR-LW240
- Coax Flex Type: Flexible

Features

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 83% Phase Velocity
- Double Shielded
- PE Jacket

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W14977 type N female bulkhead to SMA male right angle cable using LMR-LW240 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 female to male gender configuration with 50 ohm flexible LMR-LW240 coax. The PE3W14977 type N female to SMA male cable assembly operates to 6 GHz. The right angle SMA interface on the LMR-LW240 cable allows for easier connections in tight spaces. Our RF cable assembly with type N bulkhead interface allows designers to create external connections on their product enclosures, and can be used in a variety of other rack mount and panel mount applications. 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.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR			1.4:1	
Velocity of Propagation		83		%
RF Shielding	90			dB
Group Delay		1.21 [3.97]		ns/ft [ns/m]
Capacitance		24.2 [79.4]		pF/ft [pF/m]
Inductance		0.06 [0.2]		uH/ft [uH/m]
DC Resistance Inner Conductor		3.2 [10.5]		Ohms/1000ft [Ohms/Km]
DC Resistance Outer Conductor		14.4 [47.24]		Ohms/1000ft [Ohms/Km]

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Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Jacket Spark			5,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency					MHz	
PE3W14977	Custom Lengths Available	Insertion Loss (Typ.)	0.056	0.08	0.115	0.117	0.207	dB/ft	
			0.19	0.27	0.38	0.39	0.68	dB/m	
PE3W14977-12	12 inch	Insertion Loss (Typ.)	0.54	0.56	0.6	0.6	0.69	dB	0.138
PE3W14977-24	24 inch	Insertion Loss (Typ.)	0.6	0.64	0.71	0.72	0.9	dB	0.164
PE3W14977-36	36 inch	Insertion Loss (Typ.)	0.65	0.72	0.83	0.84	1.11	dB	0.189
PE3W14977-48	48 inch	Insertion Loss (Typ.)	0.71	0.8	0.94	0.95	1.31	dB	0.214
PE3W14977-60	60 inch	Insertion Loss (Typ.)	0.76	0.88	1.06	1.07	1.52	dB	0.239

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:	0.28 dB
Loss due to Connector 2:	0.2 dB
Base Weight:	0.138 pounds
Additional Weight per Inch:	0.00209 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.138 lbs [62.6 g]

Cable

Cable Type	LMR-LW240
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	0.24 in [6.1 mm]
One Time Minimum Bend Radius	0.75 in [19.05 mm]
Repeated Minimum Bend Radius	2.5 in [63.5 mm]
Bending Moment	0.25 lbs-ft [0.34 N-m]
Flat Plate Crush	20 lbs/in [0.36 Kg/mm]
Tensile Strength	80 lbs [36.29 Kg]

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Connectors

Description	Connector 1	Connector 2
Type	N Female Bulkhead	SMA Male Right Angle
Specification	MIL-STD-348	MIL-STD-348
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Right Angle
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Brass/Phosphor Bronze, Gold
Contact Plating Specification	50 μinches	50 μinch
Dielectric Type	PTFE	Teflon
Outer Conductor Material and Plating	Brass, Tri-Metal	
Outer Conductor Plating Specification	80 μinches	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification		80 μinch
Coupling Nut Material and Plating		Brass, Tri-Metal
Coupling Nut Plating Specification		80 μinch
Hex Size		5/16 Inch
Torque		7 in-lbs 0.79 Nm

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

N Female Bulkhead to SMA Male Right Angle Low Loss Cable Using LMR-LW240 Coax with Times Microwave Components



PE3W14977

Typical Performance Data

How to Order

Part Number Configuration:

PE3W14977

- **xx**

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W14977-12 = 12 inches long cable
PE3W14977-100cm = 100 cm long cable

N Female Bulkhead to SMA Male Right Angle Low Loss Cable Using LMR-LW240 Coax with Times Microwave Components 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.

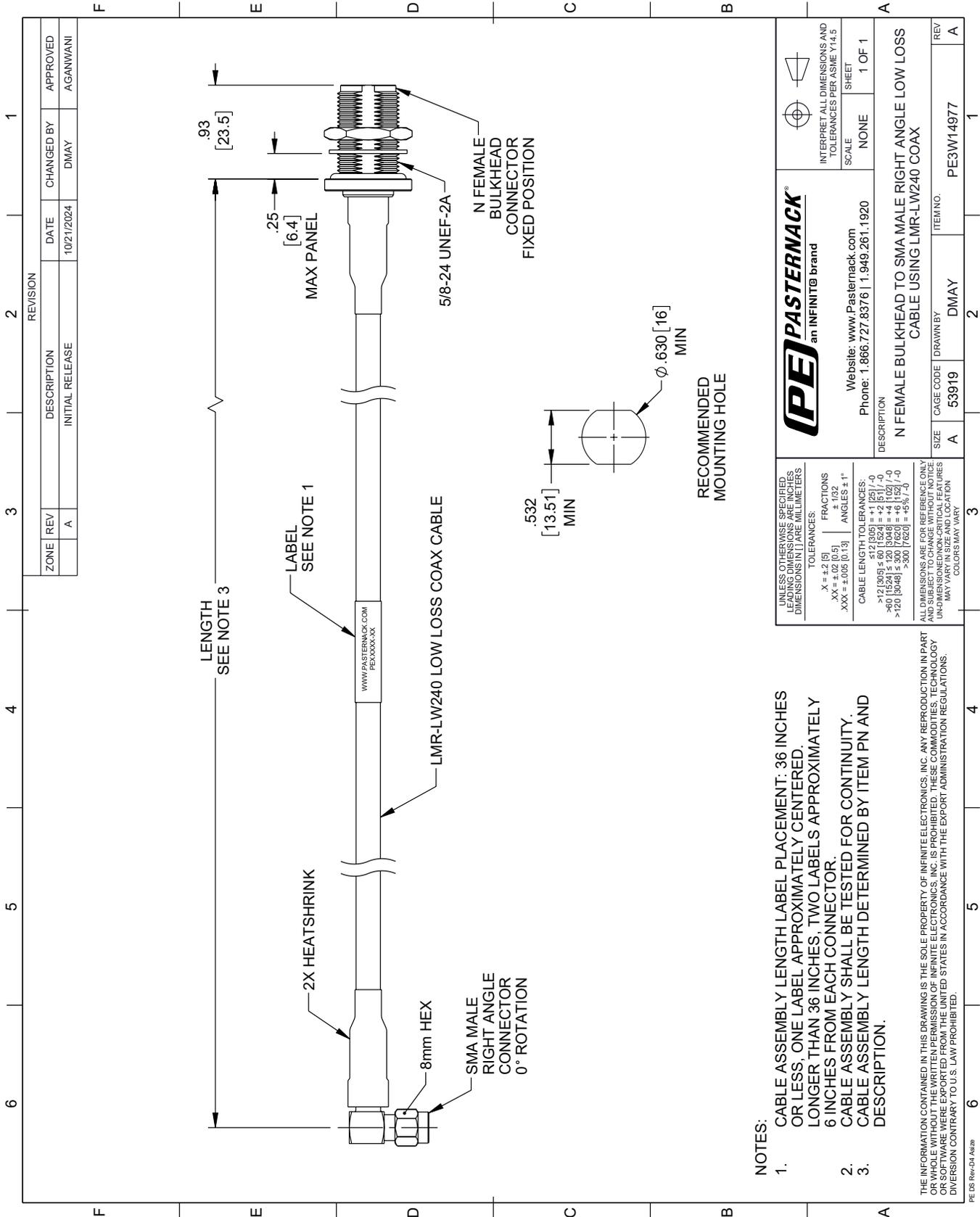
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Female Bulkhead to SMA Male Right Angle Low Loss Cable Using LMR-LW240 Coax with Times Microwave Components PE3W14977](#)

URL: <https://www.pasternack.com/n-female-bulkhead-to-sma-male-low-loss-cable-using-lmr-lw240-pe3w14977-p.aspx>

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PE3W14977 CAD Drawing

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- NOTES:**
- 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.
 - CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
 - CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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

TOLERANCES:
 .X = ±.2 [5]
 .XX = ±.02 [0.5]
 .XXX = ±.005 [0.13]

FRACTIONS:
 ± 1/32
 ANGLES ± 1°

CABLE LENGTH TOLERANCES:
 <12 [305] ≤ 60 [1524] = ±.1 [2.5] / -0
 >60 [1524] ≤ 120 [3048] = ±.4 [102] / -0
 >120 [3048] ≤ 300 [7620] = ±.6 [15.2] / -0
 >300 [7620] = ±.8 [20.3] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE
 SHEET: 1 OF 1

DESCRIPTION: N FEMALE BULKHEAD TO SMA MALE RIGHT ANGLE LOW LOSS CABLE USING LMR-LW240 COAX

REV	A
ITEM NO.	PE3W14977
SIZE	A
CAGE CODE	53919
DRAWN BY	DMAY