

## Fire Rated N Male to SMA Male Low Loss Cable Using LMR-240-FR Coax



### PE3W17303

#### Configuration

- Connector 1: N Male
- Connector 2: SMA Male
- Cable Type: LMR-240-FR
- Coax Flex Type: Flexible

#### Features

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

#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W17303 type N male to SMA male cable using LMR-240-FR 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-240-FR coax. The PE3W17303 type N male to SMA male cable assembly operates to 6 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.

#### 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		3.89 [12.76]		Ohms/1000ft [Ohms/Km]
Jacket Spark			5,000	Vrms

#### Specifications by Frequency

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**PE3W17303**

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
			Frequency		250	500	1000	2500	
PE3W17303	Custom Lengths Available	Insertion Loss (Typ.)	0.039	0.055	0.079	0.129	0.204	dB/ft	
			0.13	0.19	0.26	0.43	0.67	dB/m	
PE3W17303-12	12 In	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.41	dB	0.131
PE3W17303-24	24 In	Insertion Loss (Typ.)	0.28	0.31	0.36	0.46	0.61	dB	0.17
PE3W17303-36	36 In	Insertion Loss (Typ.)	0.32	0.37	0.44	0.59	0.82	dB	0.209
PE3W17303-48	48 In	Insertion Loss (Typ.)	0.36	0.42	0.52	0.72	1.02	dB	0.248
PE3W17303-60	60 In	Insertion Loss (Typ.)	0.4	0.48	0.6	0.85	1.22	dB	0.287

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: 0.131 pounds  
 Additional Weight per Inch: 0.00325 pounds

**Mechanical Specifications**

**Cable Assembly**

Width/Diameter 0.5 in [12.7 mm]  
 Weight 0.131 lbs [59.42 g]

**Cable**

Cable Type LMR-240-FR  
 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 Tinned Copper  
 Jacket Material FRPE, 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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**PE3W17303**

**Connectors**

Description	Connector 1	Connector 2
Type	N Male	SMA Male
Specification	MIL-STD-348	
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Mating Cycles		500
Contact Material and Plating	Beryllium Copper, Gold	Brass, Gold
Contact Plating Specification	ASTM-B488	
Dielectric Type	Teflon	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Gold
Body Plating Specification	QQ-N-290	
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Gold
Coupling Nut Plating Specification	QQ-N-290	
Hex Size	13/16 inch	5/16 inch
Torque		3 in-lbs 0.34 Nm

**Environmental Specifications**

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

**Plotted and Other Data**

Notes:

## Fire Rated N Male to SMA Male Low Loss Cable Using LMR-240-FR Coax



### PE3W17303

#### Typical Performance Data

#### How to Order

Part Number Configuration:

**PE3W17303**

- **xx**

**uu**

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W17303-12 = 12 inches long cable  
PE3W17303-100cm = 100 cm long cable

Fire Rated N Male to SMA Male Low Loss Cable Using LMR-240-FR 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.

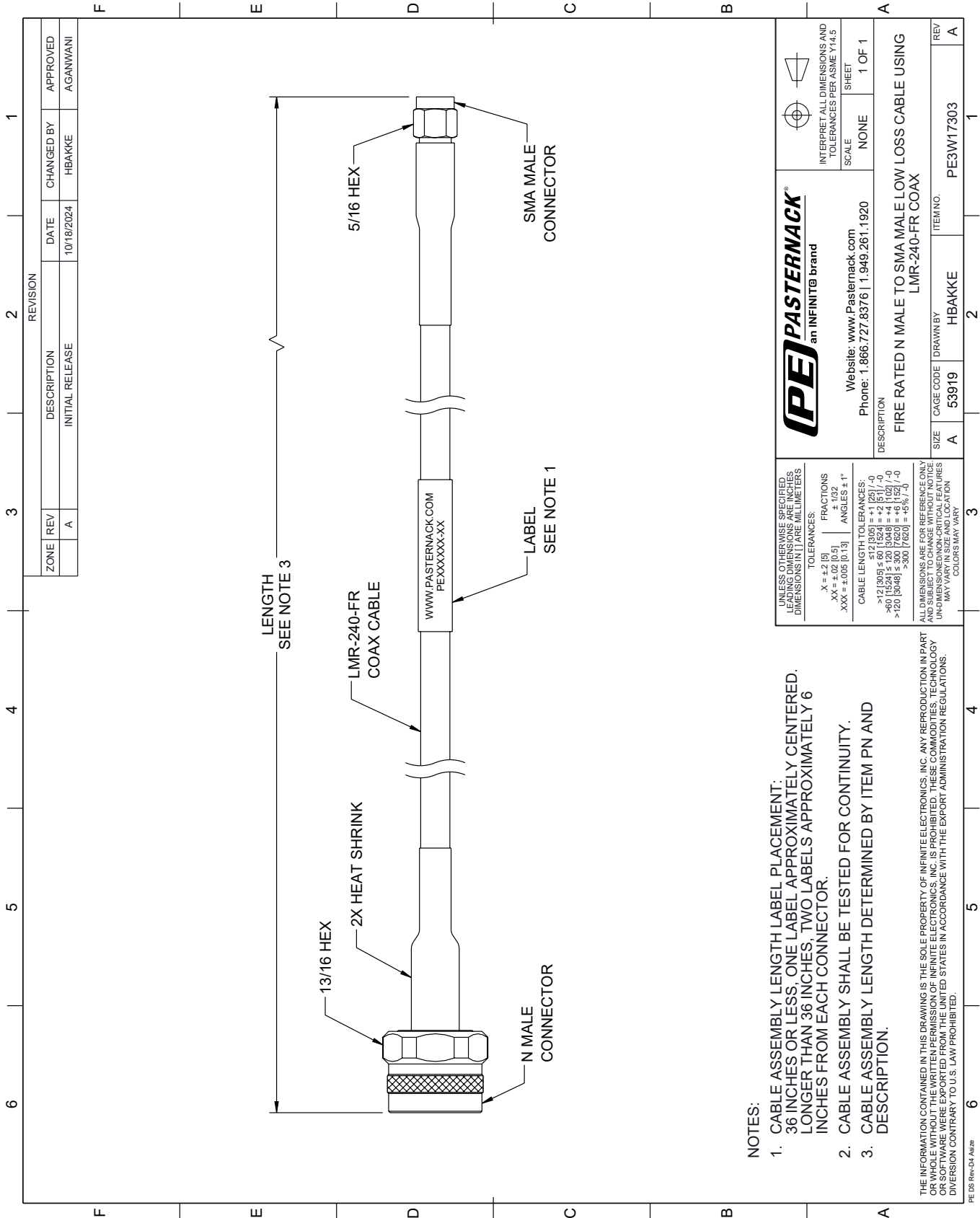
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated N Male to SMA Male Low Loss Cable Using LMR-240-FR Coax PE3W17303](#)

URL: <https://www.pasternack.com/fire-rated-n-male-to-sma-male-low-loss-cable-using-lmr-240-fr-pe3w17303-p.aspx>

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# PE3W17303 CAD Drawing

Fire Rated N Male to SMA Male Low Loss Cable Using LMR-240-FR Coax



**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 ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. 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)      FRACTIONS ± 1/32

.XX = ±.02 (0.5)      ANGLES ± 1°

.XXX = ±.005 (0.13)

CABLE LENGTH TOLERANCES:

>12 (305) ≤ 60 (1524) = ±.1 (25) / -0

>60 (1524) ≤ 120 (3048) = ±.4 (102) / -0

>120 (3048) ≤ 300 (7620) = ±.6 (152) / -0

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

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an INFINITE brand

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Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE      SHEET: 1 OF 1

DESCRIPTION: FIRE RATED N MALE TO SMA MALE LOW LOSS CABLE USING LMR-240-FR COAX

SIZE	A	CAGE CODE	53919	DRAWN BY	HBAKKE	ITEM NO.	PE3W17303
REV	A						