

Fire Rated N Male Right Angle to N Male Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components



PE3W17306

Configuration

- Connector 1: N Male Right Angle
- Connector 2: N Male Right Angle
- 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
- 500 Mating Cycles

Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W17306 type N male right angle to type N male right angle 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 type N cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240-FR coax. The PE3W17306 type N male to type N male cable assembly operates to 6 GHz. The right angle type N interfaces on the LMR-240-FR cable allow for easier connections in tight spaces. 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]
Dielectric Withstanding Voltage (DC)			1,000	Vdc

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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	
PE3W17306	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	
PE3W17306-12	12 In	Insertion Loss (Typ.)	0.44	0.46	0.48	0.53	0.61	dB	0.239
PE3W17306-24	24 In	Insertion Loss (Typ.)	0.48	0.51	0.56	0.66	0.81	dB	0.278
PE3W17306-36	36 In	Insertion Loss (Typ.)	0.52	0.57	0.64	0.79	1.02	dB	0.317
PE3W17306-48	48 In	Insertion Loss (Typ.)	0.56	0.62	0.72	0.92	1.22	dB	0.356
PE3W17306-60	60 In	Insertion Loss (Typ.)	0.6	0.68	0.8	1.05	1.42	dB	0.395

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:	0.2 dB
Loss due to Connector 2:	0.2 dB
Base Weight:	0.239 pounds
Additional Weight per Inch:	0.00325 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter	0.5 in [12.7 mm]
Weight	0.239 lbs [108.41 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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Connectors

Description	Connector 1	Connector 2
Type	N Male Right Angle	N Male Right Angle
Impedance	50 Ohms	50 Ohms
Configuration	Right Angle	Right Angle
Mating Cycles	500	500
Contact Material and Plating	Beryllium Bronze, Gold	Beryllium Bronze, Gold
Contact Plating Specification	50 µin minimum	50 µin minimum
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80 µin minimum	80 µin minimum
Coupling Nut Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Coupling Nut Plating Specification	80 µin minimum	80 µin minimum

Environmental Specifications

Operating Range Temperature -40 to +85 deg C

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

Plotted and Other Data

Notes:

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PE3W17306

Typical Performance Data

How to Order

Part Number Configuration:

PE3W17306

- xx

uu

Unit of Measure:

cm = Centimeters

<blank> = Inches

Length

Base Number

Example: PE3W17306-12 = 12 inches long cable
PE3W17306-100cm = 100 cm long cable

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

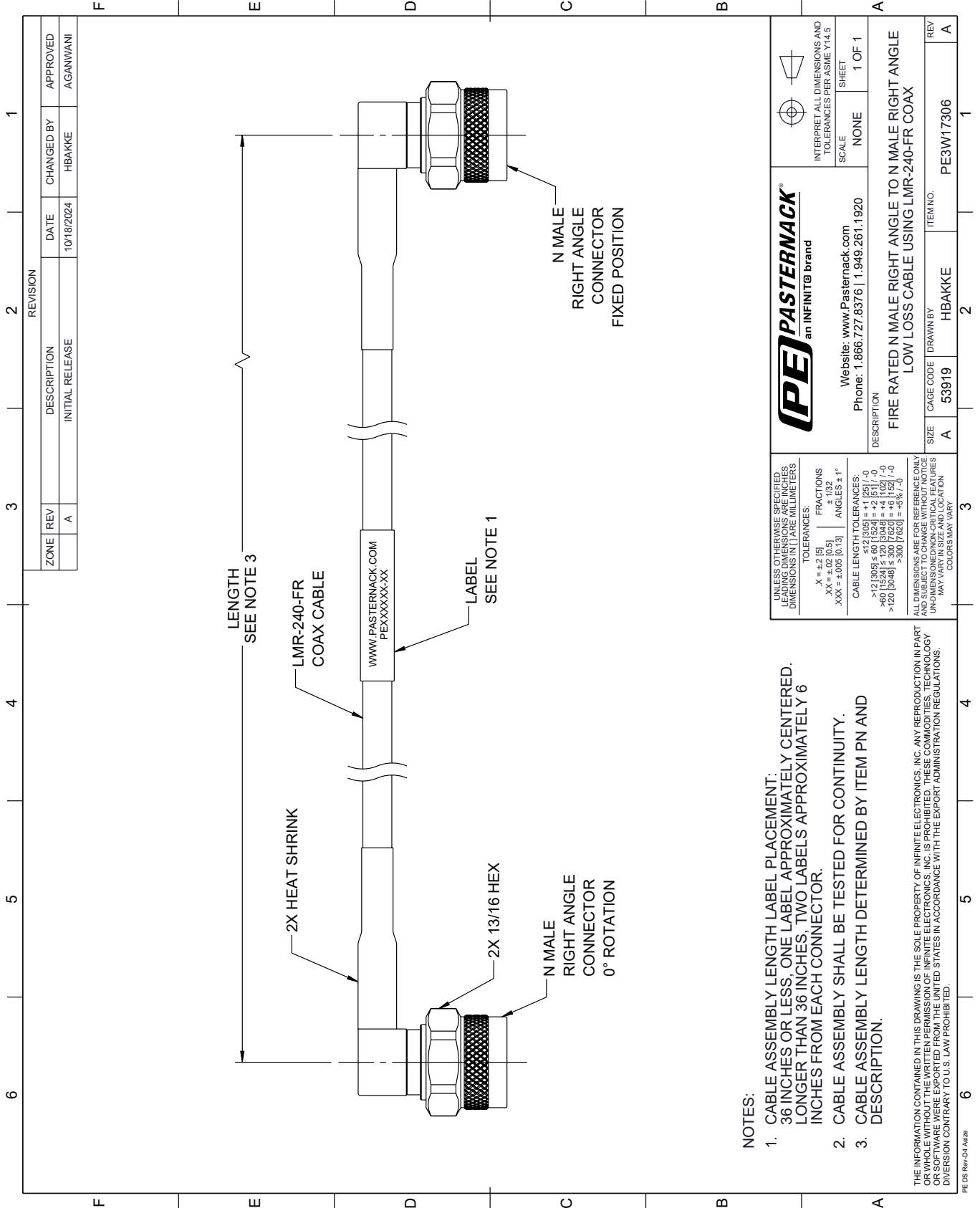
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Fire Rated N Male Right Angle to N Male Right Angle Low Loss Cable Using LMR-240-FR Coax with Times Microwave Components PE3W17306](#)

URL: <https://www.pasternack.com/fire-rated-n-male-right-angle-to-n-male-low-loss-cable-using-lmr-240-fr-pe3w17306-p.aspx>

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PE3W17306 CAD Drawing

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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
.XX = ±.02 [0.5]	± 1/32
.XXX = ±.005 [0.13]	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] = ±.6 [15.2] / -0


ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNKNOWN/DIMENSIONAL/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		SIZE	CAGE CODE	DRAWN BY	ITEM NO.
FIRE RATED N MALE RIGHT ANGLE TO N MALE RIGHT ANGLE LOW LOSS CABLE USING LMR-240-FR COAX		A	53919	HBAKKE	PE3W17306
REV					
A					