



BNC Male to BNC Male Right Angle Low Loss Cable Using LMR-240-DB Coax with HeatShrink

TECHNICAL DATA SHEET

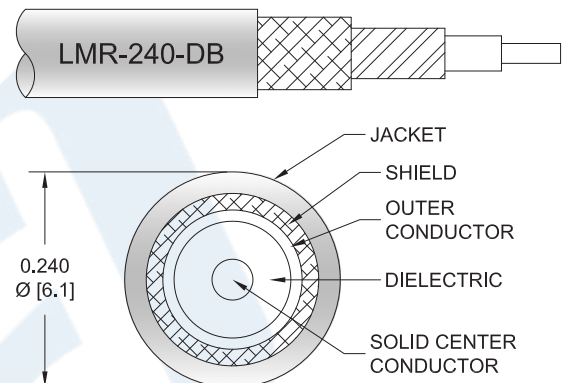
PE3W04159/HS

Configuration

- Connector 1: BNC Male
- Connector 2: BNC Male Right Angle
- Cable Type: LMR-240-DB
- Coax Flex Type: Flexible

Features

- Max Frequency 4 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



Applications

- General Purpose
- Laboratory Use

Description

Pasternack's PE3W04159/HS BNC male to BNC male right angle cable using LMR-240-DB 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 BNC to BNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240-DB coax. The PE3W04159/HS BNC male to BNC male cable assembly operates to 4 GHz. The right angle BNC interface on the LMR-240-DB cable allows 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [BNC Male to BNC Male Right Angle Low Loss Cable Using LMR-240-DB Coax with Heat-Shrink PE3W04159/HS](#)



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PE3W04159/HS

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		4	GHz
VSWR			1.4:1	
Velocity of Propagation		84		%
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]		Ω /1000ft [Ω /Km]
DC Resistance Outer Conductor		3.89 [12.76]		Ω /1000ft [Ω /Km]
Jacket Spark			5,000	Vrms

Specifications by Frequency

Part Number	Length	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
		Frequency	100	250	500	1000	4000	MHz	
PE3W04159/HS	Custom Lengths Available	Insertion Loss (Typ.)	0.02	0.04	0.06	0.08	0.16	dB/ft	
			0.08	0.13	0.19	0.26	0.53	dB/m	
PE3W04159/HS-12	12 inch	Insertion Loss (Typ.)	0.33	0.34	0.36	0.38	0.47	dB	0.107
PE3W04159/HS-24	24 inch	Insertion Loss (Typ.)	0.35	0.38	0.41	0.46	0.63	dB	0.142
PE3W04159/HS-36	36 inch	Insertion Loss (Typ.)	0.37	0.42	0.47	0.54	0.79	dB	0.176
PE3W04159/HS-48	48 inch	Insertion Loss (Typ.)	0.4	0.46	0.52	0.62	0.95	dB	0.21
PE3W04159/HS-60	60 inch	Insertion Loss (Typ.)	0.42	0.5	0.58	0.7	1.11	dB	0.244

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:	0.2 dB
Base Weight:	0.107 pounds
Additional Weight per Inch:	0.00284 pounds

Mechanical Specifications

Cable Assembly

Weight 0.107 lbs [48.53 g]

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PE3W04159/HS

Cable

Cable Type	LMR-240-DB
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper
Dielectric Type	PE (F)
Number of Shields	2
Shield Layer 1	Aluminum Tape
Shield Layer 2	Tinned Copper Braid
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]

Connectors

Description	Connector 1	Connector 2
Type	BNC Male Bayonet	BNC Male Right Angle Bayonet
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Dielectric Type	POM	PTFE
Body Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Material and Plating		Brass, Nickel

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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TECHNICAL DATA SHEET

PE3W04159/HS

How to Order

Part Number Configuration:

PE3W04159/HS

- **xx**

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

Example: PE3W04159/HS-12 = 12 inches long cable
PE3W04159/HS-100cm = 100 cm long cable

BNC Male to BNC Male Right Angle Low Loss Cable Using LMR-240-DB 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.

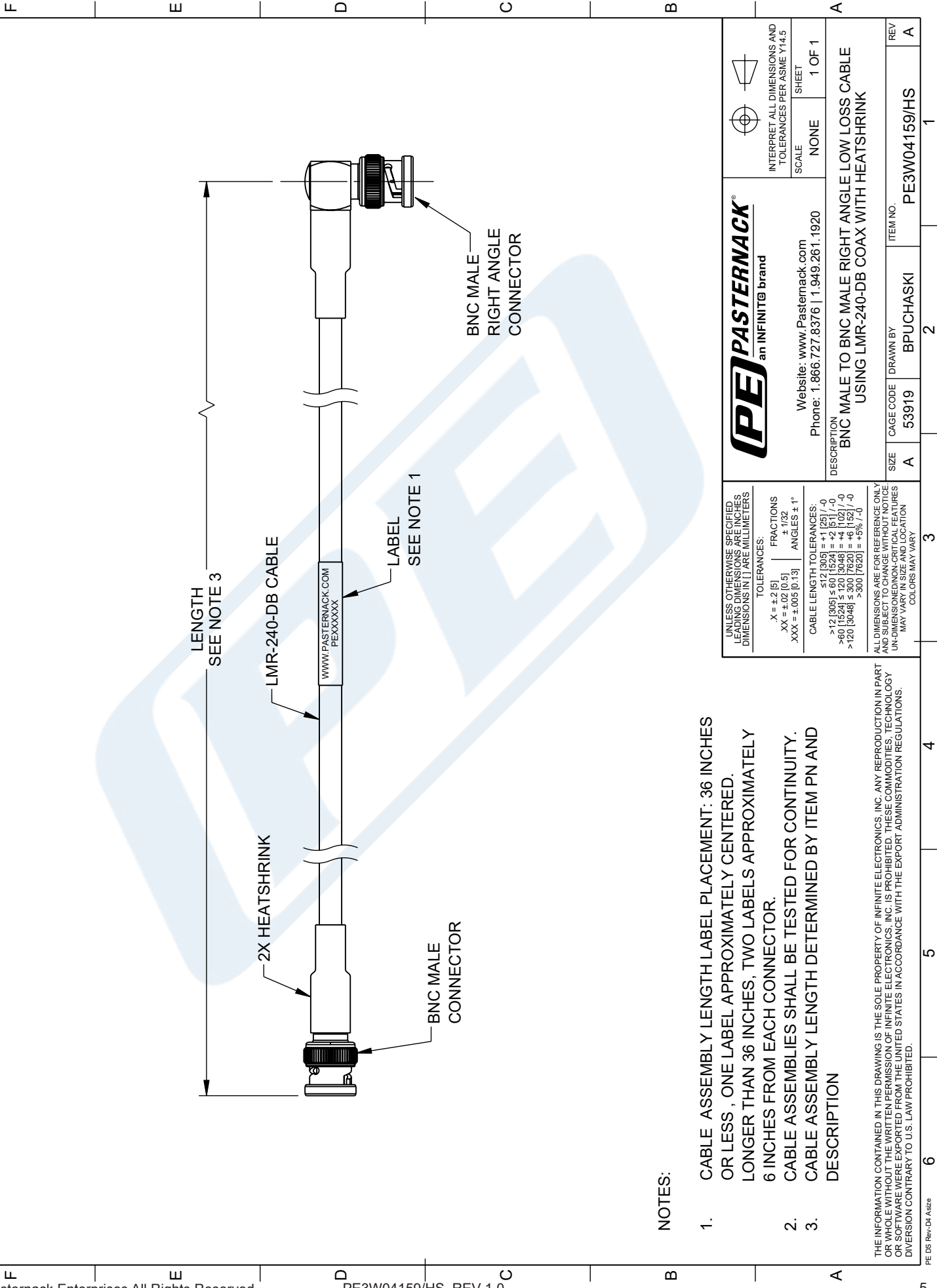
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URL: <https://www.pasternack.com/bnc-male-to-bnc-male-low-loss-cable-using-lmr-240-db-with-heatshrink-pe3w04159-hs-p.aspx>

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.

PE3W04159/HS CAD Drawing

BNC Male to BNC Male Right Angle Low Loss Cable Using LMR-240-DB 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

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REVISION		ZONE	REV.	DESCRIPTION	DATE	CHANGED BY	APPROVED BY
		A		INITIAL RELEASE	10/09/2023	BPUCHASKI	AGANWANI

 an INFINIT@ brand		 INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5	
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		SCALE	SHEET
DESCRIPTION BNC MALE TO BNC MALE RIGHT ANGLE LOW LOSS CABLE USING LMR-240-DB COAX WITH HEATSHRINK		NONE	1 OF 1
SIZE A	CAGE CODE 53919	DRAWN BY BPUCHASKI	ITEM NO. PE3W04159/HS
UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES. DIMENSIONS IN PARENTHESES ARE IN MILLIMETERS.			
TOLERANCES: X = ±.2 [5] FRACTIONS XX = ±.02 [0.5] ± 1/32 XXX = ±.005 [0.13] ANGLES ± 1°			
CABLE LENGTH TOLERANCES: ≤ 12 [305] = ±.125 [3.18] / -0 ≤ 30 [762] = ±.25 [6.35] / -0 ≤ 60 [1524] = ±.50 [12.7] / -0 ≤ 120 [3048] = ±1.0 [25.4] / -0 ≤ 300 [7620] = ±2.0 [50.8] / -0 ≤ 600 [15240] = ±4.0 [101.6] / -0 ≤ 1200 [30480] = ±8.0 [203.2] / -0 ≤ 3000 [76200] = ±16.0 [406.4] / -0 ≤ 6000 [152400] = ±32.0 [812.8] / -0 ≤ 12000 [304800] = ±64.0 [1625.6] / -0 ≤ 30000 [762000] = ±128.0 [3251.2] / -0 ≤ 60000 [1524000] = ±256.0 [6502.4] / -0 ≤ 120000 [3048000] = ±512.0 [13004.8] / -0 ≤ 300000 [7620000] = ±1024.0 [26009.6] / -0 ≤ 600000 [15240000] = ±2048.0 [52019.2] / -0 ≤ 1200000 [30480000] = ±4096.0 [104038.4] / -0 ≤ 3000000 [76200000] = ±8192.0 [208076.8] / -0 ≤ 6000000 [152400000] = ±16384.0 [416153.6] / -0 ≤ 12000000 [304800000] = ±32768.0 [832307.2] / -0 ≤ 30000000 [762000000] = ±65536.0 [1664614.4] / -0 ≤ 60000000 [1524000000] = ±131072.0 [3329228.8] / -0 ≤ 120000000 [3048000000] = ±262144.0 [6658457.6] / -0 ≤ 300000000 [7620000000] = ±524288.0 [13316915.2] / -0 ≤ 600000000 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