



## Reverse Polarity TNC Male to N Female Bulkhead Low Loss Cable Using LMR-240 Coax

### RF Cable Assemblies Technical Data Sheet

PE3W09859

#### Configuration

- Connector 1: TNC Male Reverse Polarity
- Connector 2: N Female Bulkhead
- Cable Type: LMR-240

#### Features

- Max Frequency 5.8 GHz
- Shielding Effectivity > 90 dB
- 84% Phase Velocity
- Double Shielded
- PE Jacket



#### Applications

- General Purpose
- Laboratory Use

#### Description

Pasternack's PE3W09859 reverse polarity TNC male to type N female bulkhead cable using LMR-240 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 reverse polarity TNC to type N cable assembly has a male to female gender configuration with 50 ohm flexible LMR-240 coax. The PE3W09859 reverse polarity TNC male to type N female cable assembly operates to 5.8 GHz. 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Reverse Polarity TNC Male to N Female Bulkhead Low Loss Cable Using LMR-240 Coax PE3W09859](#)



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#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.45:1	
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

Description	F1	F2	F3	F4	F5	Units
Frequency	0.25	0.5	1	2.5	5.8	GHz
Insertion Loss (Typ.)	0.04	0.06	0.08	0.13	0.2	dB/ft
	0.13	0.2	0.26	0.43	0.66	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

Diameter 0.81 in [20.57 mm]

##### Cable

Cable Type LMR-240  
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]

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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	TNC Male Reverse Polarity	N Female Bulkhead
Specification		MIL-STD-348
Impedance	50 Ohms	50 Ohms
Mating Cycles	500	
Contact Material and Plating	Phosphor Bronze, Gold	Beryllium Copper, Gold
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Body Material and Plating	Brass, Nickel	Brass, Tri-Metal
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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**How to Order**

Part Number Configuration:

**PE3W09859**

- **xx**

**uu**

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

Example: PE3W09859-12 = 12 inches long cable  
PE3W09859-100cm = 100 cm long cable

Reverse Polarity TNC Male to N Female Bulkhead Low Loss Cable Using LMR-240 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: [Reverse Polarity TNC Male to N Female Bulkhead Low Loss Cable Using LMR-240 Coax PE3W09859](https://www.pasternack.com/tnc-male-n-female-lmr240-cable-assembly-pe3w09859-p.aspx)

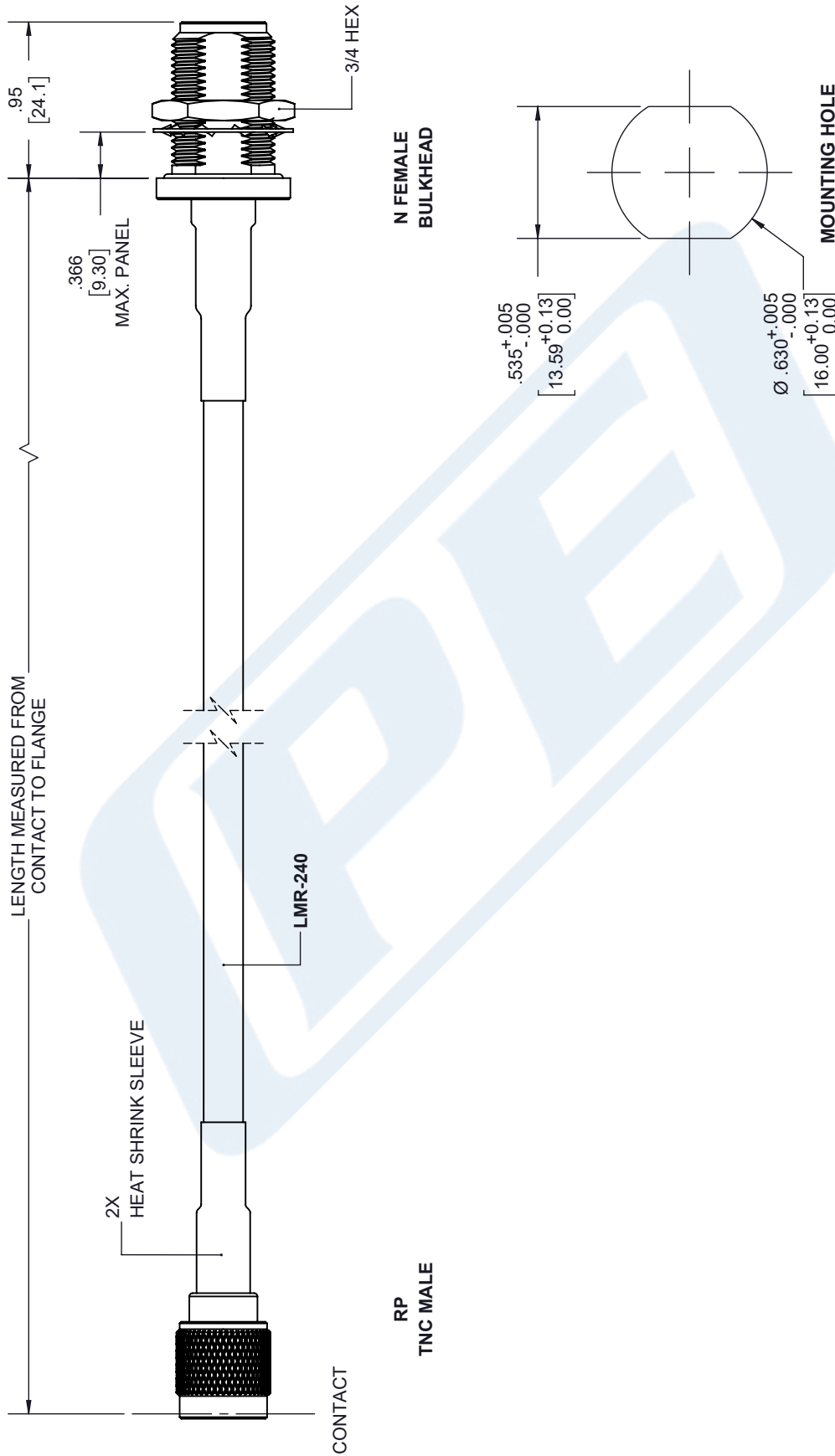
URL: <https://www.pasternack.com/tnc-male-n-female-lmr240-cable-assembly-pe3w09859-p.aspx>

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# PE3W09859 CAD Drawing

Reverse Polarity TNC Male to N Female Bulkhead Low Loss Cable Using LMR-240 Coax

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/16/2020	S. ELLIS



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
.X = ±.2	[.508]
.XX = ±.02	[.51]
.XXX = ±.005	[.13]
ANGLES ± 1°	
CABLE LENGTH (L) TOLERANCES:	
L ≤ 12 [305] = +1 [25] / -0	
12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
300 [7620] < L = +5% / -0	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	

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SHEET 1 OF 1	SCALE N/A
SIZE A	CAGE CODE 53919
DRAWN BY K.DANG	ITEM NO. PE3W09859
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