



### **TECHNICAL DATA SHEET**

PE3W02281

## Configuration

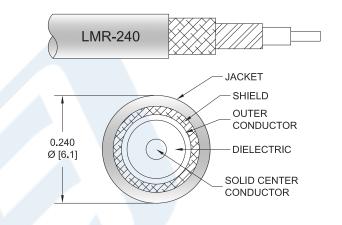
Connector 1: N MaleConnector 2: TNC MaleCable Type: LMR-240

### **Features**

· Max Frequency 6 GHz

· Coax Flex Type: Flexible

- Shielding Effectivity > 90 dB
- · 84% Phase Velocity
- · Double Shielded
- · PE Jacket



### **Applications**

General Purpose

· Laboratory Use

### Description

Pasternack's PE3W02281 type N male to TNC male 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 type N to TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-240 coax. The PE3W02281 type N male to TNC 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: N Male to TNC Male Low Loss Cable Using LMR-240 Coax PE3W02281

Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623 **Phone:** (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451

Sales@Pasternack.com • Techsupport@Pasternack.com





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### **Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		6	GHz
VSWR		, All	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	Longth	Description	F1	F2	F3	F4	F5	Units	Weight (lbs)
Part Number		1000	2500	6000	MHz	weight (ibs)			
PE3W02281	Custom Lengths	Insertion Loss (Typ.)	0.04	0.06	0.08	0.13	0.2	dB/ft	
FL3W02281	Available	ilisei tioli Loss (Typ.)	0.13	0.19	0.26	0.43	0.67	dB/m	
PE3W02281-12	12 inch	Insertion Loss (Typ.)	0.24	0.26	0.28	0.33	0.41	dB	0.152
PE3W02281-24	24 inch	Insertion Loss (Typ.)	0.28	0.31	0.36	0.46	0.61	dB	0.185
PE3W02281-36	36 inch	Insertion Loss (Typ.)	0.32	0.37	0.44	0.59	0.82	dB	0.218
PE3W02281-48	48 inch	Insertion Loss (Typ.)	0.36	0.42	0.52	0.72	1.02	dB	0.251
PE3W02281-60	60 inch	Insertion Loss (Typ.)	0.4	0.48	0.6	0.85	1.22	dB	0.284

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:

O.1 dB

Loss due to Connector 2:

0.1 dB

Base Weight:

O.152 pounds

Additional Weight per Inch:

0.00275 pounds

### **Mechanical Specifications**

#### Cable Assembly

Weight 0.152 lbs [68.95 g]

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Cable

Cable Type Impedance

Inner Conductor Type

Inner Conductor Material and Plating

Dielectric Type

Number of Shields

Shield Layer 1

Shield Layer 2

Jacket Material

Jacket Diameter

One Time Minimum Bend Radius Repeated Minimum Bend Radius

Bending Moment

Flat Plate Crush

Tensile Strength

LMR-240 50 Ohms Solid Copper

PE (F)

Aluminum Tape

Tinned Copper Braid

PE, Black

0.24 in [6.1 mm]

0.75 in [19.05 mm] 2.5 in [63.5 mm]

80 lbs [36.29 Kg]

0.25 lbs-ft [0.34 N-m] 20 lbs/in [0.36 Kg/mm]

#### **Connectors**

Description	Connector 1	Connector 2		
Туре	N Male Threaded	TNC Male Threaded		
Specification	MIL-STD-348A			
Impedance	50 Ohms	50 Ohms		
Contact Material and Plating	Brass, Gold	Brass, Gold		
Contact Plating Specification	30 μin minimum	50 μin minimum		
Dielectric Type	PTFE	Teflon		
Body Material and Plating	Brass, Nickel	Brass, Tri-Metal		
Body Plating Specification	100 μin minimum	80 µin minimum		
Coupling Nut Material and Plating	Brass, Nickel	Brass, Tri-Metal		
Coupling Nut Plating Specification	100 μin minimum	80 μin minimum		

### **Environmental Specifications**

**Temperature** 

Operating Range -40 to +85 deg C

Compliance Certifications (see product page for current document)

**Plotted and Other Data** 

Notes:

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#### How to Order



Example: PE3W02281-12 = 12 inches long cable PE3W02281-100cm = 100 cm long cable

N Male to TNC Male 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: N Male to TNC Male Low Loss Cable Using LMR-240 Coax PE3W02281

URL: https://www.pasternack.com/n-male-to-tnc-male-low-loss-cable-using-lmr-240-pe3w02281-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.

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### PE3W02281 CAD Drawing N Male to TNC Male Low Loss Cable Using LMR-240 Coax ш INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 APPROVED BY AGANWANI N MALE TO HEX COUPLING NUT TNC MALE LOW LOSS CABLE USING LMR-240 COAX 1 P SHEET **(** PE3W0228 CHANGED BY **BPUCHASKI** NONE SCALE CONNECTOR TNC MALE 5/8 – HEX 10/09/2023 PASTERNACK ITEM NO Website: www.Pasternack.com Phone: 1.866.727.8376 | 1.949.261.1920 DATE REVISION an INFINIT® brand **BPUCHASKI** INITIAL RELEASE DESCRIPTION DRAWN BY CAGE CODE 53919 DESCRIPTION SIZE REV. ⋖ ⋖ SEE NOTE 1 ZONE ALL DIMENSIONS ARE FOR REFERENCE ONLY AND SUBJECT TO CHANGE WITHOUT NOTICE. UN-DIMENSIONED/NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION COLORS MAY VARY ± 1/32 ANGLES ± 1° <12 [305] < 10 [305] < 10 [304] = +1 [25] / -0</p> >12 [305] < 60 [1524] = +2 [51] / -0</p> >60 [1524] < 20 [3048] = +4 [102] / -0</p> >120 [3048] < 300 [7620] = +6 [52] / -0</p> >300 [7620] = +5% / -0 FRACTIONS UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHE DIMENSIONS IN [] ARE MILLIMETER CABLE LENGTH TOLERANCES: LABEL က TOLERANCES: $X = \pm .2 [5]$ $XX = \pm .02 [0.5]$ $XX = \pm .005 [0.13]$ LMR-240 CABLE WWW.PASTERNACK.COM PEXXXXXX LENGTH SEE NOTE 3 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF INFINITE ELECTRONICS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF INFINITE ELECTRONICS, INC. IS PROHIBITED. THESE COMMODITES, TECHNOLOGY OR WHOLE WITHOUT THE WRITTEN PROMITE STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO US. LAW PROHIBITED. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY CABLE ASSEMBLIES SHALL BE TESTED FOR CONTINUITY. OR LESS, ONE LABEL APPROXIMATELY CENTERED. 2X HEATSHRINK 6 INCHES FROM EACH CONNECTOR. **TYPE N MALE** CONNECTOR 2 DESCRIPTION 9 NOTES: PE DS Rev-D4 Asize લં હ ш C മ ⋖ Ш PE3W0228 1 REV 1.0 5 © 2020 Pasternack Enterprises All Rights Reserved