N Male to N Male Low Loss Cable Using PE-P142LL Coax with HeatShrink

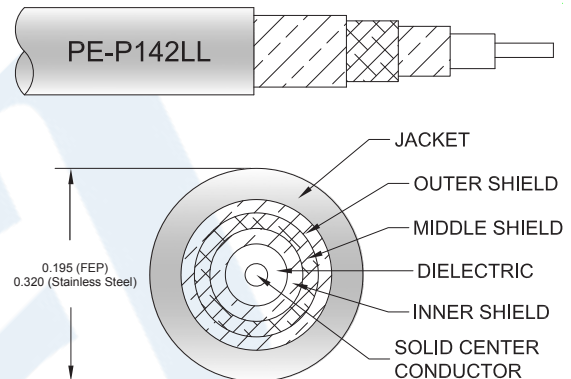## RF Cable Assemblies Technical Data Sheet | PE3C0231

Configuration

- Connector 1: N Male
- Connector 2: N Male
- Cable Type: PE-P142LL

Features

- Passivated Stainless Steel Flexible Armoring
- Type N Male to N Male and SMA Male to SMA Male Configurations Available
- Robust Connector/Armor Interface
- Triple Shielded Low Loss PE-P142LL Coax with Expanded PTFE Tape Dielectric
- Standard inch lengths: 24", 36", 48", 60", 72", 120"
- Standard metric lengths: 50cm, 100cm, 150cm, 200cm
- SMA rated to 20 GHz with a 1.35:1 VSWR
- N type rated to 18 GHz with a 1.35:1 VSWR
- Custom lengths available, call for pricing and lead time

Applications

- General Purpose
- Laboratory Use

PE-P142LL

0.195 (FEP)
0.320 (Stainless Steel)

JACKET
OUTER SHIELD
MIDDLE SHIELD
DIELECTRIC
INNER SHIELD
SOLID CENTER CONDUCTOR

Description

Pasternack's new SMA and type N armored test cables utilize a flexible passivated stainless steel armoring that is designed to handle harsh industrial environments, common in production test systems. Its rugged armoring is very flexible and ensures RF signal integrity during test, even when exposed to a high traffic production environment. These armored RF test cables are equipped with passivated stainless steel connectors, with the SMA designed to operate to 20 GHz and the type N to 18 GHz. A robust mechanical connector/armoring interface increases the durability of the test cables, and its strain relief boot increases the life of the test cable. Pasternack's armored test cables are built using PE-P142LL coaxial cable that is triple shielded with an expanded PTFE dielectric, guaranteeing low loss performance.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
VSWR		1.25:1	1.35:1	
Velocity of Propagation		80		%

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 N Male Low Loss Cable Using PE-P142LL Coax with HeatShrink PE3C0231

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Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	1	3	5	10	18	GHz
Insertion Loss (Typ.)	0.08	0.14	0.18	0.25	0.36	dB/ft
	[0.26]	[0.46]	[0.59]	[0.82]	[1.18]	[dB/m]
Power Handling (Max.)				220		Watts

Electrical Specification Notes:
Insertion loss does not include the loss of the connectors.
Insertion loss is estimated as 0.05 x sqrt(fGHz) dB per connector.

Mechanical Specifications

Cable Assembly

Weight	0.4 lbs [181.44 g]

Cable

Cable Type	PE-P142LL
Impedance	50 Ohms
Inner Conductor Type	Solid
Inner Conductor Material and Plating	Copper, Silver
Dielectric Type	PTFE
Number of Shields	3
Shield Layer 1	Silver Plated Copper Braid
Shield Layer 2	Aluminum Polyester
Shield Layer 3	Silver Plated Copper Braid
Jacket Material	Passivated Stainless Steel
Jacket Diameter	0.32 in [8.13 mm]
Repeated Minimum Bend Radius	1 in [25.4 mm]

Connectors

Description	Connector 1	Connector 2
Type	N Male	N Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Gold	Brass, Gold
Body Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel
Coupling Nut Material and Plating	Passivated Stainless Steel	Passivated Stainless Steel

Mechanical Specification Notes:

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*All cable assemblies have a length tolerance of 1.5% or ± 3/8", whichever is greater.

Environmental Specifications
Temperature
Operating Range   -55 to +200 deg C

Compliance Certifications (see product page for current document)

Plotted and Other Data
Notes:
• Values at 25°C, sea level.

How to Order

Part Number Configuration: **PE3C0231   - xx   uu**

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

Example: PE3C0231-12 = 12 inches long cable
    PE3C0231-100cm = 100 cm long cable

N Male to N Male Low Loss Cable Using PE-P142LL 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% availability and are part of the broadest selection in the industry.
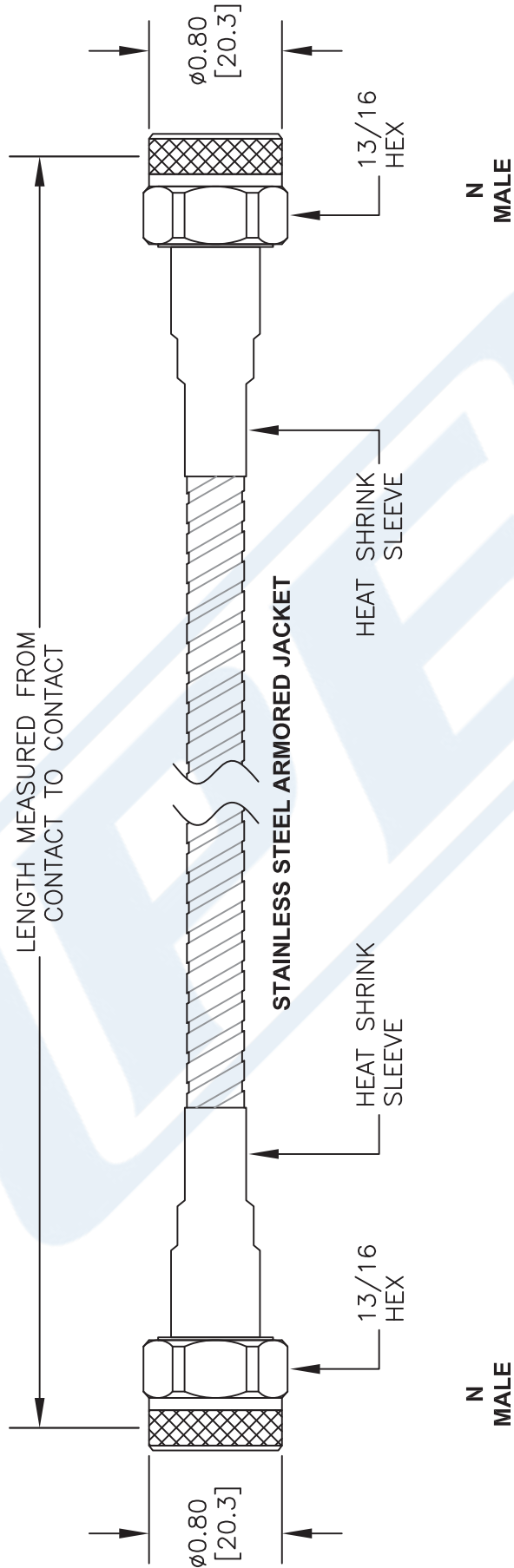
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URL: https://www.pasternack.com/n-male-n-male-pe-p142ll-cable-assembly-pe3c0231-p.aspx

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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PE3C0231 CAD Drawing
N Male to N Male Low Loss Cable Using PE-P142LL Coax with HeatShrink

ø0.80 [20.3]

13/16 HEX

N MALE

HEAT SHRINK SLEEVE

LENGTH MEASURED FROM CONTACT TO CONTACT

STAINLESS STEEL ARMORED JACKET

HEAT SHRINK SLEEVE

13/16 HEX

N MALE

HEAT SHRINK SLEEVE

ø0.80 [20.3]

STANDARD TOLERANCES
.X   ±0.2
.XX   ±0.1
.XXX ±0.05

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

DWG TITLE
PE3C0231

FSCM NO. 53919

NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

CAD FILE 110916

SCALE N/A

SIZE A

41742

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