

Plenum N Male to N Female Bulkhead Low PIM Cable Using SPP-250-LLPL Coax



PE3C8421

Configuration

- Connector 1: N Male
- Connector 2: N Female Bulkhead
- Cable Type: SPP-250-LLPL
- Coax Flex Type: Corrugated

Features

- Max Frequency 6 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket



Applications

- General Purpose
- Laboratory Use
- Low PIM Applications

Description

Pasternack's PE3C8421 type N male to type N female bulkhead cable using SPP-250-LLPL coax is part of our full line of RF components available for same-day shipping. Pasternack's corrugated RF cable assemblies are ideal for applications where durability and high power are needed. This Pasternack type N to type N cable assembly has a male to female gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C8421 type N male to type N female cable assembly operates to 6 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc. 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.

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		76		%
RF Shielding	100			dB
Passive Intermodulation IM3 (2x43dBm Tones) at 850 MHz or 1900 MHz			-160	dBc
Capacitance		27 [88.58]		pF/ft [pF/m]
Inductance		0.067 [0.22]		uH/ft [uH/m]
DC Resistance Inner Conductor		3 [9.84]		Ohms/1000ft [Ohms/Km]

Specifications by Frequency

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Part Number	Length	Description	F1	F2	F3	F4	Units	Weight (lbs)
			Frequency	500	1000	2500	6000	
PE3C8421	Custom Lengths Available	Insertion Loss (Typ.)	0.039	0.054	0.093	0.148	dB/ft	
			0.13	0.18	0.31	0.49	dB/m	
PE3C8421-12	12 In	Insertion Loss (Typ.)	0.24	0.26	0.3	0.35	dB	0.241
PE3C8421-24	24 In	Insertion Loss (Typ.)	0.28	0.31	0.39	0.5	dB	0.312
PE3C8421-36	36 In	Insertion Loss (Typ.)	0.32	0.37	0.48	0.65	dB	0.382
PE3C8421-60	60 In	Insertion Loss (Typ.)	0.4	0.47	0.67	0.94	dB	0.522
PE3C8421-50CM	50 CM	Insertion Loss (Typ.)	0.27	0.29	0.36	0.45	dB	0.286

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: 0.1 dB
 Base Weight: 0.241 pounds
 Additional Weight per Inch: 0.00584 pounds

Mechanical Specifications

Cable Assembly

Width/Diameter .5 in [12.7 mm]
 Weight 0.241 lbs [109.32 g]

Cable

Cable Type SPP-250-LLPL
 Impedance 50 Ohms
 Inner Conductor Type Solid
 Inner Conductor Material and Plating Copper
 Dielectric Type PTFE
 Number of Shields 1
 Outer Conductor 1 Material and Plating Copper
 Jacket Material FEP, Blue
 Jacket Diameter 0.28 in [7.11 mm]
 One Time Minimum Bend Radius 1.25 in [31.75 mm]
 Bending Moment 0.8 lbs-ft [1.08 N-m]

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Connectors

Description	Connector 1	Connector 2
Type	N Male	N Female Bulkhead
Impedance	50 Ohms	50 Ohms
Configuration	Straight	Straight
Contact Material and Plating	Phosphor Bronze, Silver	Bronze, Silver
Contact Plating Specification	196 µin	
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating		Brass, Tri-Metal
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118 µin	
Coupling Nut Material and Plating	Brass, Tri-Metal	
Coupling Nut Plating Specification	118 µin	
Torque	7.08 in-lbs 0.8 Nm	

Environmental Specifications

Operating Range Temperature -40 to +155 deg C

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

Plotted and Other Data

Notes:

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PE3C8421

Typical Performance Data

How to Order

Part Number Configuration:

PE3C8421

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

Example: PE3C8421-12 = 12 inches long cable
PE3C8421-100cm = 100 cm long cable

Plenum N Male to N Female Bulkhead Low PIM Cable Using SPP-250-LLPL 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.

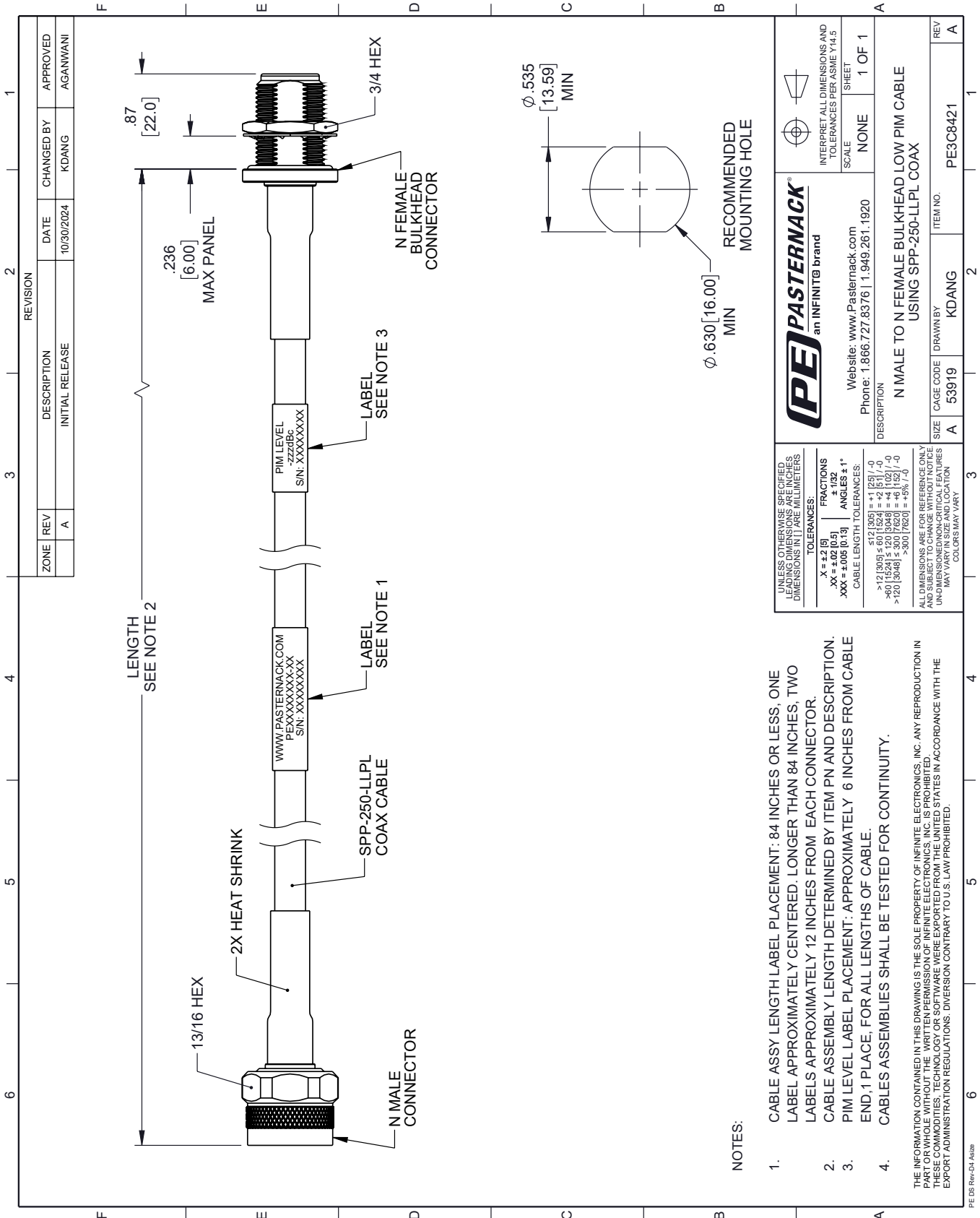
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Plenum N Male to N Female Bulkhead Low PIM Cable Using SPP-250-LLPL Coax PE3C8421](#)

URL: <https://www.pasternack.com/plenum-n-male-to-n-female-bulkhead-low-pim-cable-using-spp-250-llpl-pe3c8421-p.aspx>

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PE3C8421 CAD Drawing

Plenum N Male to N Female Bulkhead Low PIM Cable Using SPP-250-LLPL Coax



PE PASTERNAK an INFINITB brand		INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5 SCALE: NONE SHEET: 1 OF 1
Website: www.Pasternack.com Phone: 1.866.727.8376 1.949.261.1920		DESCRIPTION: N MALE TO N FEMALE BULKHEAD LOW PIM CABLE USING SPP-250-LLPL COAX
SIZE: A	CAGE CODE: 53919	ITEM NO.: PE3C8421
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [] ARE MILLIMETERS.		
TOLERANCES: .X = ±.2 [5] .XX = ±.02 [0.5] .XXX = ±.005 [0.13]		
ANGLES ± 1° CABLE LENGTH TOLERANCES: ≤ 12 [305] = ±.1 [2.5] / -0 > 12 [305] ≤ 60 [1524] = ±.2 [5] / -0 > 60 [1524] ≤ 120 [3048] = ±.4 [10.2] / -0 > 120 [3048] ≤ 300 [7620] = ±.8 [20] / -0		
ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES AND DIMENSIONS IN [] ARE MILLIMETERS. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.		

NOTES:

- CABLE ASSY LENGTH LABEL PLACEMENT: 84 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 84 INCHES, TWO LABELS APPROXIMATELY 12 INCHES FROM EACH CONNECTOR.
- CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION. END, 1 PLACE. FOR ALL LENGTHS OF CABLE.
- CABLES ASSEMBLIES SHALL BE TESTED FOR CONTINUITY.

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