



## Plenum 7/16 DIN Male to 7/16 DIN Male Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts

### RF Cable Assemblies Technical Data Sheet

PE3C6181-48

#### Configuration

- Connector 1: TC-SPP250-716M-LP  
7/16 DIN Male
- Connector 2: TC-SPP250-716M-LP  
7/16 DIN Male
- Cable: SPP-250-LLPL

#### Features

- Max Frequency 5.8 GHz
- Low PIM: -160 dBc Max
- Shielding Effectivity > 100 dB
- 76% Phase Velocity
- FEP Jacket
- 100% Tested with PIM Test Results Marked on Cable
- UL910 Plenum Rated Cable
- Lightweight and Extremely Flexible
- Low Loss with Excellent VSWR
- IP67 (when mated)
- Using Times Microwave Components

#### Applications

- General Purpose
- Laboratory Use
- Low PIM Applications
- Distributed Antenna Systems (DAS)
- Plenum Installations
- Multi-Carrier Communication Systems
- PIM Testing

#### Description

Pasternack's PE3C6181-48 7/16 DIN male to 7/16 DIN male 48 inch 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 7/16 DIN to 7/16 DIN cable assembly has a male to male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C6181-48 7/16 DIN male to 7/16 DIN male cable assembly operates to 5.8 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -160 dBc. Times Microwave cable is used in each assembly and TMS components are used to form connections with the super flexible low PIM cable. These cable assemblies are expertly built to satisfy your specific need with high quality Times Microwave Systems manufactured parts.

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: [Plenum 7/16 DIN Male to 7/16 DIN Male Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6181-48](#)





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### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		5.8	GHz
VSWR			1.4:1	
Velocity of Propagation		76		%
RF Shielding	100			dB
Passive Intermodulation		-165	-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]		Ω/1000ft [Ω/Km]

### Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency	0.45	0.7	1	2.5	5.8	GHz
Insertion Loss (Max.)	0.3	0.38	0.43	0.7	1.1	dB

#### Electrical Specification Notes:

PIM test results vary between cables

The Insertion Loss data above is based on the performance specifications of the coax used in this assembly. The Insertion Loss includes an estimated insertion loss of 0.1\*SQRT(FGHz) dB per connector.

### Mechanical Specifications

#### Cable Assembly

Description	Minimum	Typical	Maximum	Units
Length		48.0 [121.9]		in [cm]
Jacket Diameter		0.28 [7.11]		in [mm]
One Time Minimum Bend Radius	1.25			in
Bending Moment		0.8		lbs-ft

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### Cable Characteristics

Description	Specification
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
Shield Layer 1	Helically Corrugated Copper Tube
Outer Conductor Material and Plating	Copper
Outer Conductor Diameter	0.25 in [6.35 mm]
Jacket Material	FEP, Blue

### Connector Characteristics

Description	Connector 1	Connector 2
Type	7/16 DIN Male	7/16 DIN Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Brass, Silver	Brass, Silver
Contact Plating Specification	200µ in	200µ in
Dielectric Type	PTFE	PTFE
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	80 µin	80 µin
Coupling Nut Material and Plating	Brass, Nickel	Brass, Nickel
Coupling Nut Plating Specification	80 µin	80 µin
Torque	22.127 ft-lbs 30 Nm	22.127 ft-lbs 30 Nm

Mechanical Specification Notes:

### Environmental Specifications

Description	Specification
Temperature Operating Range	-55 to +200 deg C
Temperature Storage Range	-55 to +200 deg C
Plenum Rating	UL910

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

### Plotted and Other Data

Notes:

- Values at 25°C, sea level.

### Typical Performance Data



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Length Using SPP-250-LLPL Coax Using Times Microwave Parts

## RF Cable Assemblies Technical Data Sheet

PE3C6181-48

### How to Order

Part Number Configuration:

**PE3C6181**

- **xx**

**uu**

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

Example: PE3C6181-12 = 12 inches long cable  
PE3C6181-100cm = 100 cm long cable

Plenum 7/16 DIN Male to 7/16 DIN Male Low PIM Cable 48 Inch Length Using SPP-250-LLPL Coax Using Times Microwave Parts 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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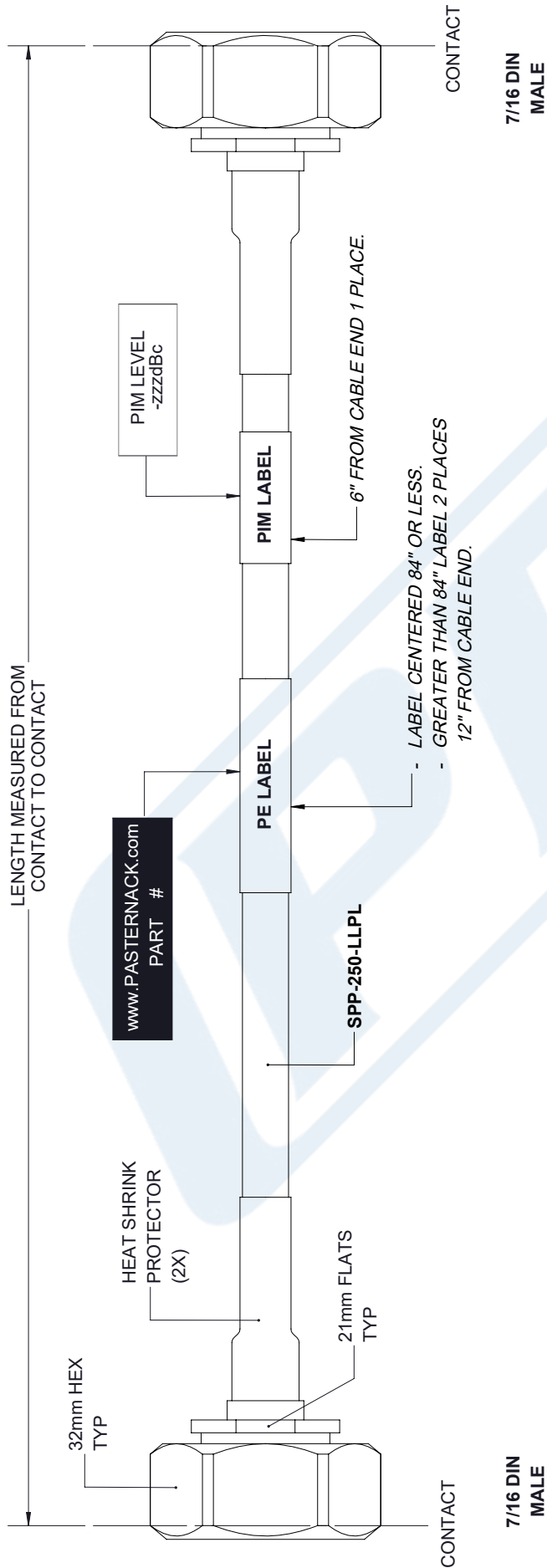
URL: <https://www.pasternack.com/7-16-din-male-7-16-din-male-spp250llpl-cable-assembly-pe3c6181-48-p.aspx>

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.

# PE3C6181-48 CAD Drawing

Plenum 7/16 DIN Male to 7/16 DIN Male Low PIM Cable 48 Inch Length  
Using SPP-250-LLPL Coax Using Times Microwave Parts

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	04/09/19	SELLIS



<b>PE PASTERNAK</b> an INFINITI brand Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920   1.866.727.8376 Fax: 1.949.261.7451 www.pasternack.com   e-mail: sales@pasternack.com		THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.	
SHEET 1 OF 1 SCALE N/A		REV A	
SIZE A CAGE 53919 DRAWN BY K.DANG PART NUMBER PE3C6181		UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS TOLERANCES: X±.2 [5.08] XX±.01 [.25] XXX±.005 [.13] FRACTIONS ±.132 ANGLES ± 1° ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. THIRD-ANGLE PROJECTION	

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