



Plenum 7/16 DIN Female to N Male Low PIM Cable 50 cm Length Using SPP-250-LLPL Coax Using Times Microwave Parts

RF Cable Assemblies Technical Data Sheet

PE3C6224-50CM

Configuration

- Connector 1: TC-SPP250-716F-LP
7/16 DIN Female
- Connector 2: TC-250-NM-LP
N 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 PE3C6224-50CM 7/16 DIN female to type N male 50 cm 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 type N cable assembly has a female to male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C6224-50CM 7/16 DIN female to type N 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 Female to N Male Low PIM Cable 50 cm Length Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6224-50CM](#)





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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.)	0.24	0.27	0.3	0.42	0.6	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 dB for the female connector and 0.1*SQRT(FGHz) dB for the male connector.

Mechanical Specifications

Cable Assembly

Description	Minimum	Typical	Maximum	Units
Length		19.7 [500.0]		in [mm]
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 Female	N Male
Impedance	50 Ohms	50 Ohms
Contact Material and Plating	Phosphor Bronze, Silver	Phosphor Bronze, Silver
Contact Plating Specification	196µ in	196µ in
Dielectric Type	PTFE	PTFE
Outer Conductor Material and Plating	Brass, Tri-Metal	
Outer Conductor Plating Specification	118µ in	
Body Material and Plating	Brass, Tri-Metal	Brass, Tri-Metal
Body Plating Specification	118µ in	118µ in
Coupling Nut Material and Plating		Brass, Tri-Metal
Coupling Nut Plating Specification		118µ in
Torque	22.127 ft-lbs 30 Nm	9.74 in-lbs 1.1 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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How to Order

Part Number Configuration:

PE3C6224

- **xx**

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

Example: PE3C6224-12 = 12 inches long cable
PE3C6224-100cm = 100 cm long cable

Plenum 7/16 DIN Female to N Male Low PIM Cable 50 cm 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-female-n-male-spp250llpl-cable-assembly-pe3c6224-50cm-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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Diagram illustrating the components and labels of a PIM Label Cable Assembly:

- LENGTH MEASURED FROM CONTACT TO CONTACT**: Dimension line across the top of the assembly.
- CONTACT**: Labels for the connectors at both ends of the cable.
- 13/16 HEX**: Label for the hex nut on the right connector.
- 21mm HEX**: Label for the hex nut on the left connector.
- HEAT SHRINK PROTECTOR (2X)**: Label for the protective sleeves on the cable.
- www.PASTERNAK.com PART #**: Label for the part number, pointing to a black box.
- PIM LEVEL -zzzdBc**: Label for the PIM level, pointing to a box.
- PIM LABEL**: Label for the PIM label, pointing to a label on the cable.
- 6" FROM CABLE END 1 PLACE.**: Label for the distance from the cable end to the PIM label.
- PE LABEL**: Label for the PE label, pointing to a label on the cable.
- SPP-250-LLPL**: Label for the cable type, pointing to the cable.
- Labels and Distances**:
 - LABEL CENTERED 84" OR LESS.
 - GREATER THAN 84" LABEL 2 PLACES 12" FROM CABLE END.
- N MALE**: Label for the connector type on the right.

7/16 DIN
FEMALE

N MALE

<p>UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN () ARE MILLIMETERS</p>	<p>TOLERANCES:</p>				<p>ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.</p>	<p>THIRD-ANGLE PROJECTION</p> 	<p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p>
	<p>X±.2</p> <p>XX±.01</p> <p>XXX±.005</p>	<p>2</p> <p>[.25]</p> <p>[.13]</p>	<p>[5.08]</p> <p>±.132</p> <p>ANGLES ± 1°</p>	<p>FRACTIONS</p>			

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