



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

### RF Cable Assemblies Technical Data Sheet

**PE3C6224**

#### Configuration

- Connector 1: 7/16 DIN Female
- Connector 2: N Male
- Cable Type: 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 7/16 DIN female to type N male 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 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 Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6224](#)



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

## RF Cable Assemblies Technical Data Sheet

**PE3C6224**

### 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.) | 0.038<br>0.12 | 0.048<br>0.16 | 0.057<br>0.19 | 0.094<br>0.31 | 0.148<br>0.49 | dB    |

#### Electrical Specification Notes:

PIM test results vary between cables

Insertion Loss does not include the loss of the connectors. Insertion Loss is estimated as 0.1 dB for the female connector and 0.1\*SQRT(FGHz) dB for the male connector.

### Mechanical Specifications

#### Cable Assembly

Weight 0.3 lbs [136.08 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                                |
| Shield Layer 1                       | Helically Corrugated Copper Tube |
| Outer Conductor Material and Plating | Copper                           |
| Outer Conductor Diameter             | 0.25 in [6.35 mm]                |

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 Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6224](#)



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

### RF Cable Assemblies Technical Data Sheet

**PE3C6224**

|                              |                       |
|------------------------------|-----------------------|
| 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] |

#### Connectors

| 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         | 196 µin                 | 196 µin                 |
| Dielectric Type                       | PTFE                    | PTFE                    |
| Outer Conductor Material and Plating  | Brass, Tri-Metal        |                         |
| Outer Conductor Plating Specification | 118 µin                 |                         |
| Body Material and Plating             | Brass, Tri-Metal        | Brass, Tri-Metal        |
| Body Plating Specification            | 118 µin                 | 118 µin                 |
| Coupling Nut Material and Plating     |                         | Brass, Tri-Metal        |
| Coupling Nut Plating Specification    |                         | 118 µin                 |
| Torque                                | 22.127 ft-lbs [30 Nm]   | 9.74 in-lbs [1.1 Nm]    |

#### Environmental Specifications

##### Temperature

|                 |                   |
|-----------------|-------------------|
| Operating Range | -55 to +200 deg C |
| Storage Range   | -55 to +200 deg C |
| Plenum Rating   | UL910             |

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

#### Plotted and Other Data

##### Notes:

- Values at 25°C, sea level.

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 Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6224](#)



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

### RF Cable Assemblies Technical Data Sheet

**PE3C6224**

#### How to Order

Part Number Configuration:

**PE3C6224**

**- xx**

**uu**

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 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.

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 Using SPP-250-LLPL Coax Using Times Microwave Parts PE3C6224](#)

URL: <https://www.pasternack.com/7-16-din-female-n-male-spp250llpl-cable-assembly-pe3c6224-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.


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

Diagram illustrating the components and labeling of a PIM cable assembly:

- Labels:**
  - PE LABEL:** Located on the cable body, with a callout to [www.PASTERNAK.com](http://www.PASTERNAK.com) and **PART #**.
  - PIM LABEL:** Located on the cable body, with a callout to **PIM LEVEL -zzzdBc**.
- Dimensions:**
  - 6" FROM CABLE END 1 PLACE.** Dimension for the PIM label.
  - 12" FROM CABLE END.** Dimension for the PE label.
  - 13/16 HEX** and **21mm HEX** dimensions for the cable ends.
- Other Components:**
  - HEAT SHRINK PROTECTOR (2X)** at the cable ends.
  - SPP-250-LLPL** label on the cable body.
  - CONTACT** at both ends of the cable.
- Orientation:** The cable is labeled **N MALE** at the right end.

7/16 DIN  
FEMALE

**N MALE**

|  |                |           |           |                      |   |   |
|--|----------------|-----------|-----------|----------------------|---|---|
| UNLESS OTHERWISE SPECIFIED<br>LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS | TOLERANCES:    |           |           |                      | ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY. |  |
|  | $X \pm .2$     | [ .5 OR ] | FRACTIONS | $\pm 1/32$           |   |   |
|  | $.XX \pm .01$  | [ .25 ]   |           | ANGLES $\pm 1^\circ$ |   |   |
|  | $XXX \pm .005$ | [ .13 ]   |           |                      |   |   |
| THIRD-ANGLE PROJECTION   |                |           |           |                      |   |   |

**PE PASTERNAK**  
an INFINITE® 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  
e-mail: sales@pasternack.com

| SIZE | CAGE  | DRAWN BY       | PART NUMBER |
|------|-------|----------------|-------------|
| A    | 50010 | K. D. A. N. G. | DESIGN      |

THE INFORMATION AND  
DESIGN IN THIS DOCUMENT  
IS THE PROPERTY OF  
PASTERNAK CORPORATION.  
ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE  
N/A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.