



# **RF Cable Assemblies Technical Data Sheet**

## PE3C5858

OUTER SHIELD

DIELECTRIC

SOLID CENTER CONDUCTOR

## Configuration

- Connector 1: 7/16 DIN Female
- Connector 2: SMA Male
- Cable Type: SPP-250-LLPL

### Features

- Max Frequency 5.8 GHz
- Low PIM: -155 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)

## **Applications**

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

SPP-250-LLPL

Ø 280

[7.11]

JACKET

### Description

Pasternack's PE3C5858 7/16 DIN female to SMA 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 SMA cable assembly has a female to male gender configuration with 50 ohm corrugated SPP-250-LLPL coax. The PE3C5858 7/16 DIN female to SMA male cable assembly operates to 5.8 GHz. Our low PIM design also offers excellent passive intermodulation performance with PIM levels better than -155 dBc.

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 SMA Male Low PIM Cable Using SPP-250-LLPL Coax, LF Solder PE3C5858





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### **Electrical Specifications**

| Description                   | Minimum        | Typical      | Maximum | Units              |
|-------------------------------|----------------|--------------|---------|--------------------|
| Frequency Range               | iency Range DC |              | 5.8     | GHz                |
| VSWR                          |                |              | 1.4:1   |                    |
| Velocity of Propagation       |                | 76           |         | %                  |
| RF Shielding                  | 100            |              |         | dB                 |
| Passive Intermodulation       |                |              | -155    | 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

| 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/ft<br>dB/m |

Electrical Specification Notes:

Insertion loss does not include the loss of the connectors. Insertion loss is estimated as 0.04\*SQRT(FGHz) dB per connector.

#### **Mechanical Specifications**

#### **Cable Assembly**

#### Cable

| 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 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] |

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OFFERNACK

PE3C5858

# Bending Moment

0.8 lbs-ft [1.08 N-m]

## Connectors

| Description                          | Connector 1              | Connector 2      |
|--------------------------------------|--------------------------|------------------|
| Туре                                 | 7/16 DIN Female          | SMA Male         |
| Impedance                            | 50 Ohms                  | 50 Ohms          |
| Contact Material and Plating         | Beryllium Copper, Silver | Brass, Gold      |
| Dielectric Type                      | PTFE                     | PTFE             |
| Outer Conductor Material and Plating | Brass, Tri-Metal         |                  |
| Body Material and Plating            | Brass, Tri-Metal         | Brass, Tri-Metal |
| Coupling Nut Material and Plating    |                          | Brass, Tri-Metal |

Mechanical Specification Notes:

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

## **Environmental Specifications**

Temperature Operating Range

-55 to +165 deg C

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

## **Plotted and Other Data**

Notes:

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**PE3C5858** 

# Plenum 7/16 DIN Female to SMA Male Low PIM Cable Using SPP-250-LLPL Coax , LF Solder

# **RF Cable Assemblies Technical Data Sheet**

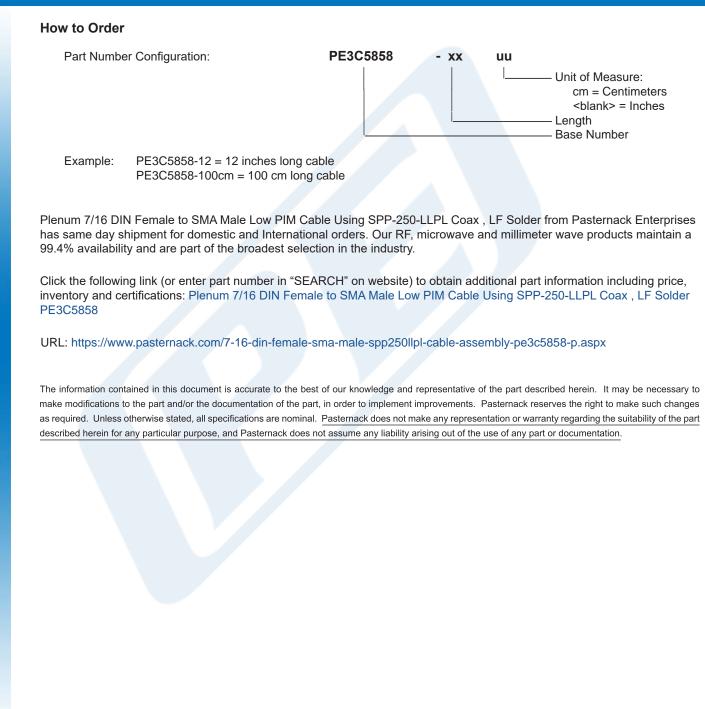
| Typical Performance Data  |
|---|
| PIM LEVEL<br>Test Result> dBc   |
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# **RF Cable Assemblies Technical Data Sheet**

## PE3C5858



PE3C5858 CAD Drawing Plenum 7/16 DIN Female to SMA Male Low PIM Cable

Using SPP-250-LLPL Coax , LF Solder

