



## 2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

### RF Connectors Technical Data Sheet

PE45673

#### Configuration

- 2.2-5 Male Connector
- 50 Ohms
- Straight Body Geometry

- Connector Interface Types: PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250
- Low PIM Design

#### Features

- Max. Operating Frequency 6 GHz
- PIM levels lower than -163 dBc

- Silver Plated Brass Contact

#### Applications

- General Purpose Test
- Custom Cable Assemblies
- Wireless Communications
- Low PIM Applications

#### Description

Pasternack's PE45673 2.2-5 male connector with solder/solder attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250 and SPF-250 is part of our full line of RF components available for same-day shipping. Our 2.2-5 male connector operates up to a maximum frequency of 6 GHz. The 2.2-5 male connector also has low passive intermodulation of -163 dBc.

Our 2.2-5 male connector PE45673 datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

#### Electrical Specifications

| Description                          | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|---------|---------|-------|
| Frequency Range                      | DC      |         | 6       | GHz   |
| Passive Intermodulation              |         |         | -163    | dBc   |
| Dielectric Withstanding Voltage (AC) |         |         | 750     | Vrms  |

#### Performance by Frequency

| Description     | F1      | F2     | F3 | F4 | F5 | Units |
|-----------------|---------|--------|----|----|----|-------|
| Frequency Range | DC to 3 | 3 to 6 |    |    |    | GHz   |
| VSWR, Max       | 1.15:1  | 1.25:1 |    |    |    |       |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45673](#)



## 2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

### RF Connectors Technical Data Sheet

PE45673

#### Mechanical Specifications

##### Size

|            |                    |
|------------|--------------------|
| Length     | 0.88 in [22.35 mm] |
| Width/Dia. | 0.68 in [17.27 mm] |
| Weight     | 0.05 lbs [22.68 g] |

#### Material Specifications

| Description  | Material | Plating   |
|--------------|----------|-----------|
| Contact      | Brass    | Silver    |
| Insulation   | PTFE     |           |
| Body         | Brass    | Tri-Metal |
| Coupling Nut | Brass    | Tri-Metal |
| O-Ring       | Silicone |           |

#### Environmental Specifications

##### Temperature

|                 |                   |
|-----------------|-------------------|
| Operating Range | -40 to +155 deg C |
|-----------------|-------------------|

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

#### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45673](#)



## 2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

### RF Connectors Technical Data Sheet

PE45673

2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 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: [2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45673](https://www.pasternack.com/2.2-5-male-pe-1-4sfhc-spp-250-llpl-connector-pe45673-p.aspx)

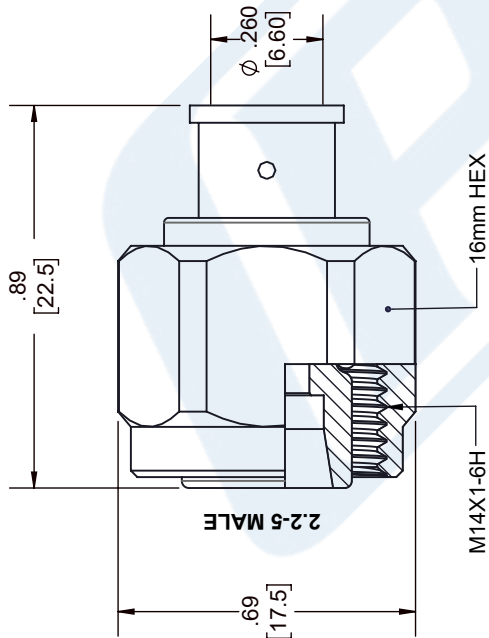
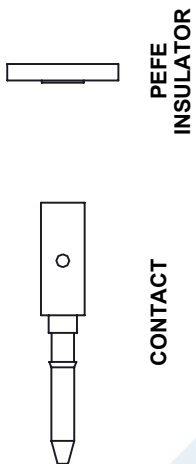
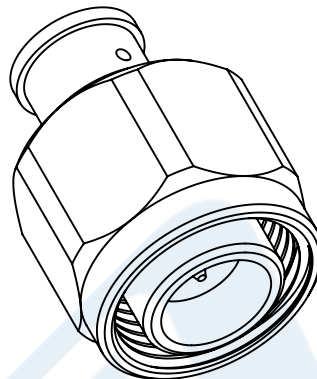
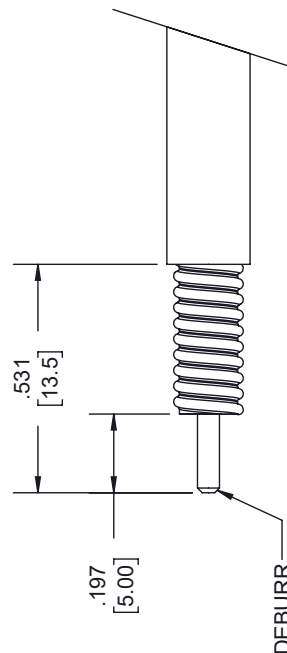
URL: <https://www.pasternack.com/2.2-5-male-pe-1-4sfhc-spp-250-llpl-connector-pe45673-p.aspx>

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# PE45673 CAD Drawing

2.2-5 Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 1/12/2021 | S. ELLIS |



## STRIPPING DIMENSIONS

- NOTES:
- CABLE ATTACHMENT:
    - OUTER: SOLDER.
    - INNER: SOLDER.

UNLESS OTHERWISE SPECIFIED  
LEADING DIMENSIONS ARE INCHES  
DIMENSIONS IN [ ] ARE MILLIMETERS

| TOLERANCES:                  |                 |
|------------------------------|-----------------|
| X = ± .2                     | [.008]          |
| .XX = ± .02                  | [.51]           |
| .XXX = ± .005                | [.13]           |
| ANGLES ± 1°                  |                 |
| CABLE LENGTH (L) TOLERANCES: |                 |
| L ≤ 12 [305]                 | ± .1 [25] / -0  |
| 12 [305] < L ≤ 60 [1524]     | ± .2 [51] / -0  |
| 60 [1524] < L ≤ 120 [3048]   | ± .4 [102] / -0 |
| 120 [3048] < L ≤ 300 [7620]  | ± .6 [152] / -0 |
| 300 [7620] < L               | ± 5% / -0       |

ALL DIMENSIONS SHOWN  
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SHEET 1 OF 1

SCALE N/A

REV A



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ITEM NO. PE45673

DRAWN BY K.DANG

CAGE CODE 53919

REV A



## 4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

### RF Connectors Technical Data Sheet



**TC-250-4310MS-LP**

#### Times Microwave Systems Connector Specification

##### Configuration

- Snap-On 4.3-10 Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC
- Low PIM Design

##### Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.25:1
- PIM levels lower than -160 dBc
- Silver Plated Brass Contact
- 5 µm contact plating

##### Applications

- General Purpose Test
- Custom Cable Assemblies
- Distributed Antenna Systems (DAS)
- Wireless Communications
- Low PIM Applications

##### Description

Times Microwave's TC-250-4310MS-LP 4.3-10 male snap-on connector offered by Pasternack with solder/solder attachment for Times' SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible and PE-1/4SFHC is part of our full line of RF components available for same-day shipping. Times Microwave's 4.3-10 male connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.25:1. The Times 4.3-10 male connector also has low passive intermodulation of -160 dBc.

Times Microwave's 4.3-10 male connector TC-250-4310MS-LP datasheet specifications and drawing with dimensions are shown below in this PDF. Pasternack's broad catalog of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. Whether the need is to provide an I/O for a board design, or simply create a custom cable assembly configuration, Pasternack has the right connector for the job. Pasternack can also expertly build your custom cable assemblies for you and ship same-day.

##### Electrical Specifications

| Description                          | Minimum | Typical | Maximum | Units |
|--------------------------------------|---------|---------|---------|-------|
| Frequency Range                      | DC      |         | 6       | GHz   |
| VSWR                                 |         |         | 1.25:1  |       |
| Insertion Loss                       |         |         | 0.25    | dB    |
| Passive Intermodulation              |         |         | -160    | dBc   |
| Operating Voltage (DC)               |         |         | 1,000   | Vdc   |
| Dielectric Withstanding Voltage (AC) |         |         | 1,000   | Vrms  |
| Insulation Resistance                | 5,000   |         |         | MOhms |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC TC-250-4310MS-LP](#)



## 4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

### RF Connectors Technical Data Sheet



**TC-250-4310MS-LP**

#### Performance by Frequency

| Description     | F1      | F2     | F3 | F4 | F5 | Units |
|-----------------|---------|--------|----|----|----|-------|
| Frequency Range | DC to 3 | 3 to 6 |    |    |    | GHz   |
| VSWR, Max       | 1.15:1  | 1.25:1 |    |    |    |       |

Electrical Specification Notes:  
Insertion Loss is 0.1\*sqrt(FGHz)

#### Mechanical Specifications

##### Size

|                       |                        |
|-----------------------|------------------------|
| Length                | 1.13 in [28.7 mm]      |
| Width/Dia.            | 0.84 in [21.34 mm]     |
| Height                | 0.84 in [21.34 mm]     |
| Weight                | 0.0835 lbs [37.87 g]   |
| Mating Cycles         | 500 Cycles             |
| Mating Torque         | 44.25 in-lbs [5.00 Nm] |
| Cable Retention Force | 113 lbs 51.26 kg       |

#### Material Specifications

| Description  | Material | Plating           |
|--------------|----------|-------------------|
| Contact      | Brass    | Silver<br>5 µm    |
| Insulation   | PTFE     |                   |
| Body         | Brass    | Tri-Metal<br>2 µm |
| Coupling Nut | Brass    | Tri-Metal<br>2 µm |
| Gasket       | Silicone |                   |

#### Environmental Specifications

##### Temperature

|                 |                                       |
|-----------------|---------------------------------------|
| Operating Range | -55 to +85 deg C                      |
| Shock           | MIL-STD 202G, Method 213, Condition I |
| Vibration       | MIL-STD 202G, Method 204, Condition B |
| Thermal Shock   | MIL-STD 202G, Method 107, Condition B |

Environmental Specification Notes:  
IEC 60068 55/155/56

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC TC-250-4310MS-LP](#)



### 4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

## RF Connectors Technical Data Sheet



**TC-250-4310MS-LP**

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

#### Plotted and Other Data

Notes:

4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC 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.

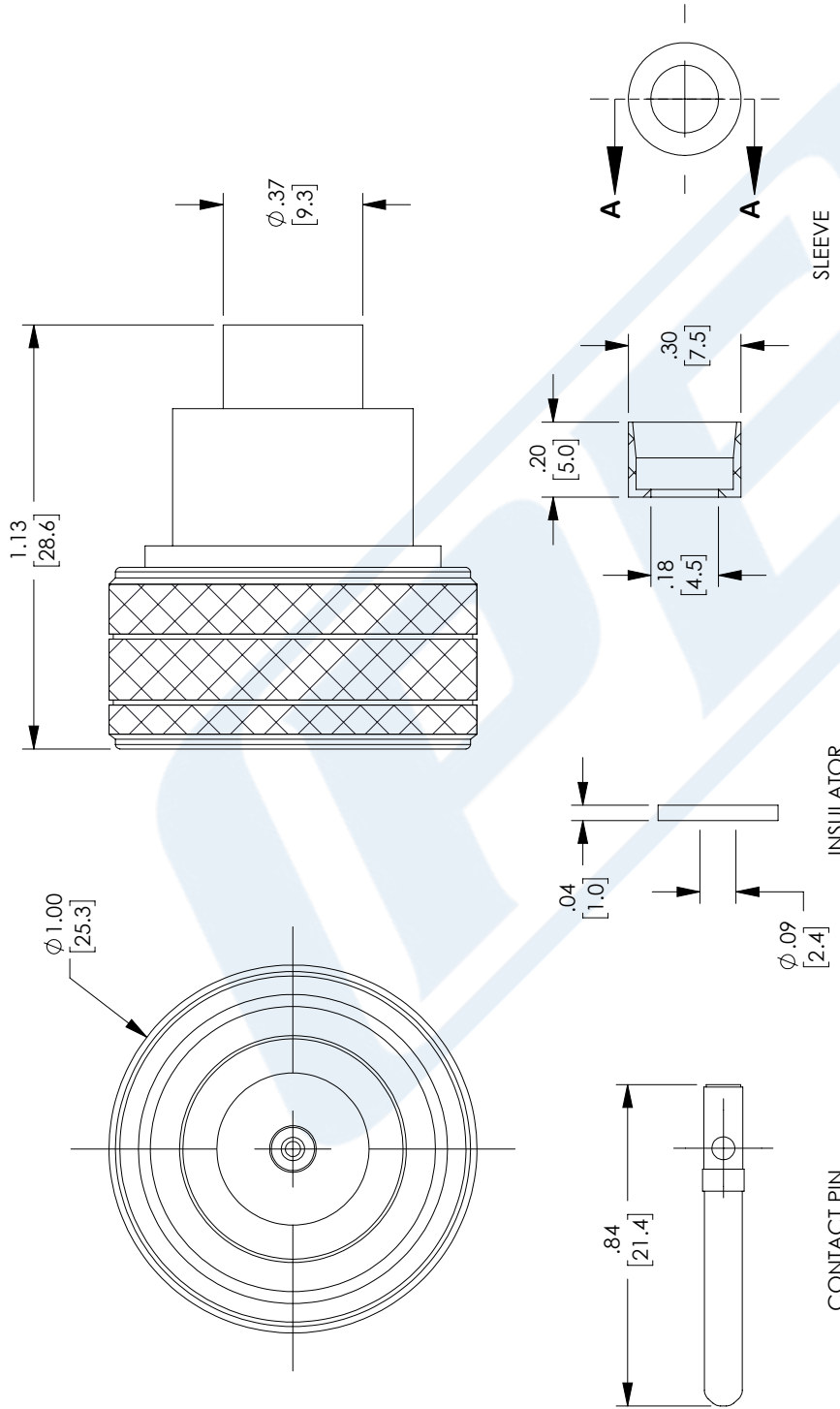
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC TC-250-4310MS-LP](#)

URL: <https://www.pasternack.com/4.3-10-male-snap-on-spp-250-llpl-connector-tc-250-4310ms-lp-p.aspx>

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**TIMES** MICROWAVE SYSTEMS **TC-250-4310MS-LP CAD Drawing**  
 4.3-10 Male Low PIM Snap-On Connector Solder Attachment for SPP-  
 250-LLPL, SPF-250, SPO-250, 1/4" Superflexible, PE-1/4SFHC

| REVISIONS |                 |            |          |
|-----------|-----------------|------------|----------|
| REV.      | DESCRIPTION     | DATE       | APPROVED |
| A         | INITIAL RELEASE | 03/10/2021 | SELLIS   |



UNLESS OTHERWISE SPECIFIED  
 LEADING DIMENSIONS ARE INCHES  
 DIMENSIONS IN [ ] ARE MILLIMETERS

TOLERANCES:  
 .X = ± .2 [5.08] FRACTIONS  
 .XX = ± .02 [.51] ± 1/32  
 .XXX = ± .005 [.13] ANGLES ± 1°  
 CABLE LENGTH (L) TOLERANCES:  
 L ≤ 12 [305] = +1 [25] / -0  
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0  
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0  
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0  
 300 [7620] < L = +5% / -0

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SHEET 1 OF 1  
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ITEM NO. TC-250-4310MS-LP  
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 CAGE CODE 53919  
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## Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

### RF Cables Technical Data Sheet


**SPP-250-LLPL**

#### Times Microwave Systems Coax Cable Specification Configuration

- Low Loss, Plenum Corrugated Cable

#### Features

- PIM < -160 dBc
- UL910 Plenum Rated Cable
- Lightweight and Extremely Flexible
- Low Loss
- Great Shielding >100 dB
- UV Resistant Jacket

#### Applications

- Distributed Antenna Systems (DAS)
- Plenum Installations
- Small Cells
- Multi-Carrier Communication Systems
- PIM Testing

#### Description

SPP-250-LLPL low loss plenum rated coax cable by Times Microwave is part of our full line of RF components available for same-day shipping. The SPP-250-LLPL coaxial cable features a low loss dielectric, solid copper center conductor and a helically corrugated, copper outer conductor. These features combine to make the Times Microwave SPP-250-LLPL an extremely flexible, low PIM coax cable that is well suited for Distributed Antenna Systems (DAS), plenum installations or small cells. The tough, FEP jacket provides moisture and UV protection.

Our datasheet specifications and drawing with dimensions for Times Microwave SPP-250-LLPL coax cable are shown below in this PDF. Whether the need is to provide a low PIM jumper connection, low PIM feeder cable or simply create a custom cable assembly configuration, Pasternack has the right SPP-250-LLPL cable assemblies for the job.

#### Electrical Specifications

| Description                   | Minimum | Typical      | Maximum | Units        |
|-------------------------------|---------|--------------|---------|--------------|
| Frequency Range               | DC      |              | 5.8     | GHz          |
| Impedance                     |         | 50           |         | Ohms         |
| Velocity of Propagation       |         | 76           |         | %            |
| Shielding Effectiveness       | 100     |              |         | dB           |
| Passive Intermodulation       |         |              | -160    | dBc          |
| Inner Conductor DC Resistance |         |              | 3       | Ohms/1000ft  |
| Nominal Capacitance           |         | 27 [88.58]   |         | pF/ft [pF/m] |
| Nominal Inductance            |         | 0.067 [0.22] |         | uH/ft [uH/m] |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-250-LLPL](#)



## Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

### RF Cables Technical Data Sheet


**SPP-250-LLPL**

#### Performance by Frequency Band

| Description           | F1    | F2    | F3    | F4    | F5    | Units    |
|-----------------------|-------|-------|-------|-------|-------|----------|
| Frequency             | 0.45  | 1.9   | 2.3   | 4.9   | 5.8   | GHz      |
| Attenuation, Typ      | 3.8   | 8.1   | 9     | 13.5  | 14.8  | dB/100ft |
|                       | 12.47 | 26.57 | 29.53 | 44.29 | 48.56 | dB/100m  |
| Input Power (CW), Max | 1,010 | 470   | 430   | 280   | 260   | Watts    |

#### Mechanical Specifications

|                                 |                          |
|---------------------------------|--------------------------|
| Diameter                        | 0.28 in [7.11 mm]        |
| Weight                          | 0.072 lbs/ft [0.11 Kg/m] |
| Min. Bend Radius (Installation) | 1.25 in [31.75 mm]       |
| Bending Moment                  | 0.8 lbs-ft [1.08 N-m]    |

#### Construction Specifications

| Description     | Material and Plating | Diameter           |
|-----------------|----------------------|--------------------|
| Inner Conductor | Copper, 1 Strands    | 0.068 in [1.73 mm] |
| Conductor Type  | Solid                |                    |
| Dielectric      | PTFE                 | 0.19 in [4.83 mm]  |
| Outer Conductor | Copper<br>Corrugated | 0.25 in [6.35 mm]  |
| Jacket          | FEP, Blue            | 0.28 in [7.11 mm]  |

#### Environmental Specifications

|                                |                   |
|--------------------------------|-------------------|
| Temperature<br>Operating Range | -55 to +200 deg C |
|--------------------------------|-------------------|

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-250-LLPL](#)



## Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

### RF Cables Technical Data Sheet

**SPP-250-LLPL**

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

#### Plotted and Other Data

Notes:

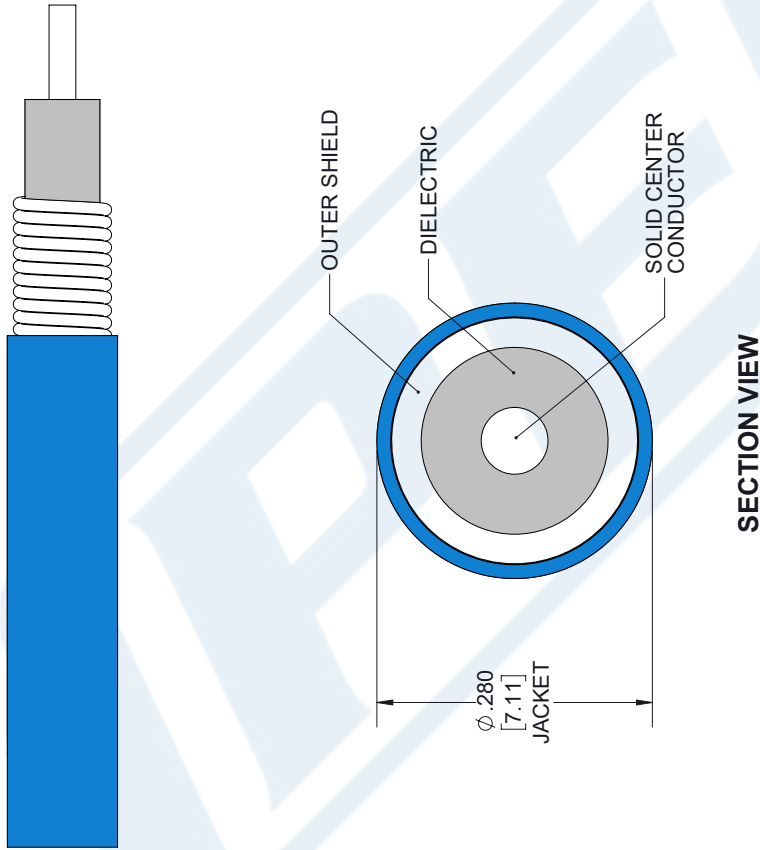
Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-250-LLPL](#)

URL: <https://www.pasternack.com/low-loss-corrugated-spp250llpl-fep-jacket-spp-250-llpl-p.aspx>

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**TIMES** MICROWAVE SYSTEMS **SPP-250-LLPL CAD Drawing**  
 Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax  
 Cable with Blue FEP Jacket Superflexible



| STANDARD TOLERANCES |        |
|---------------------|--------|
| .X                  | ±0.2   |
| .XX                 | ±0.01  |
| .XXX                | ±0.005 |

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

|                                                                                                                                                                                                                                                                                                                                                      |                                  |                 |                                                                                                                                                                                     |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|  <b>PASTERNAK®</b><br>THE ENGINEER'S RF SOURCE<br>Pasternack Enterprises, Inc.<br>P.O. Box 16759   Irvine   CA   92623<br><b>Phone:</b> (949) 261-1920   <b>Fax:</b> (949) 261-7451<br><b>Website:</b> www.pasternack.com   <b>E-Mail:</b> sales@pasternack.com | DWG TITLE<br><b>SPP-250-LLPL</b> |                 | NOTES:<br>1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.<br>2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.<br>3. DIMENSIONS ARE IN INCHES [mm]. |             |
|                                                                                                                                                                                                                                                                                                                                                      | <b>CAGE CODE</b> 53919           | CAD FILE 022118 | SCALE N/A                                                                                                                                                                           | SIZE A 7361 |