



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

### RF Connectors Technical Data Sheet

PE45664

#### Configuration

- N 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
- Excellent VSWR of 1.15:1

- PIM levels lower than -160 dBc
- Silver Plated Brass Contact

#### Applications

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

#### Description

Pasternack's PE45664 type N 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 type N male connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.15:1. The type N male connector also has low passive intermodulation of -160 dBc.

Our type N male connector PE45664 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                                 |         |         | 1.15:1  |       |
| Passive Intermodulation              |         |         | -160    | dBc   |
| Dielectric Withstanding Voltage (AC) |         |         | 750     | Vrms  |

#### Mechanical Specifications

##### Size

|            |                    |
|------------|--------------------|
| Length     | 0.94 in [23.88 mm] |
| Width/Dia. | 0.85 in [21.59 mm] |
| Weight     | 0.11 lbs [49.9 g]  |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45664](#)



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

### RF Connectors Technical Data Sheet

PE45664

#### Material Specifications

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

Mechanical Specification Notes:  
Interface Conforms to IEC 61169-16

#### Environmental Specifications

##### Temperature

Operating Range

-40 to +155 deg C

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

#### Plotted and Other Data

Notes:

N 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: [N Male Low PIM Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45664](#)

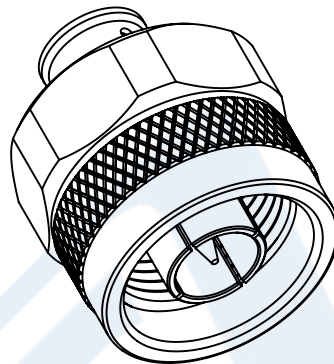
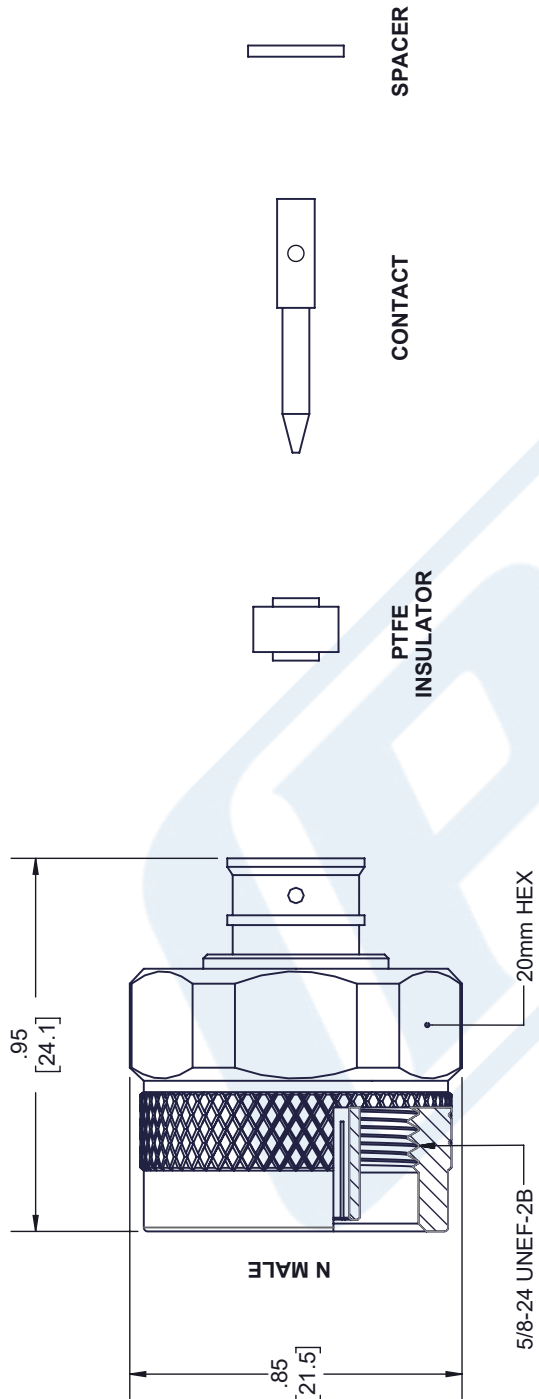
URL: <https://www.pasternack.com/n-male-pe-1-4sfhc-spp-250-llpl-connector-pe45664-p.aspx>

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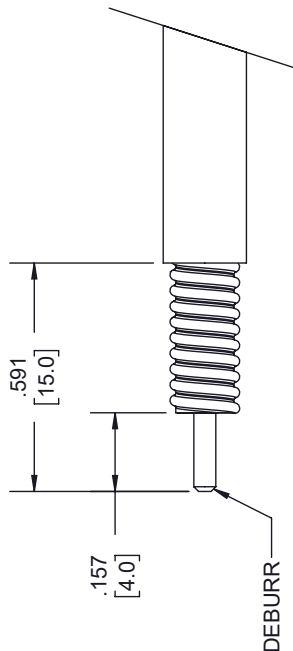
# PE45664 CAD Drawing

N 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 | 1/11/2021 | S. ELLIS |



## STRIPPING DIMENSIONS



## NOTES:

1. CABLE ATTACHMENT:  
• OUTER: SOLDER.  
• INNER: SOLDER.

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

| TOLERANCES:                                     |             |
|---|-------------|
| .X = ± .2                                       | [5.08]      |
| .XX = ± .02                                     | [.51]       |
| .XXX = ± .005                                   | [.13]       |
| ANGLES ± 1°                                     |             |
| CABLE LENGTH (L) TOLERANCES:                    |             |
| L ≤ 12 [305]                                    | ± .1 [2.5]  |
| 12 [305] < L ≤ 60 [1524]                        | ± .2 [5.1]  |
| 60 [1524] < L ≤ 120 [3048]                      | ± .4 [10.2] |
| 120 [3048] < L ≤ 300 [7620]                     | ± .6 [15.2] |
| 300 [7620] < L                                  | ± .5% [L]   |
| ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY. |             |

THIRD-ANGLE PROJECTION  
THE INFORMATION AND  
DESIGN IN THIS DOCUMENT  
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|-------|-----|----|---|
| SHEET | 1   | OF | 1 |
| SCALE | N/A |    |   |
| REV   | A   |    |   |



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|      |   |           |       |          |        |          |         |
|------|---|-----------|-------|----------|--------|----------|---------|
| SIZE | A | CAGE CODE | 53919 | DRAWN BY | K.DANG | ITEM NO. | PE45664 |
|------|---|-----------|-------|----------|--------|----------|---------|



## QMA Male Right Angle Snap-On Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

### RF Connectors Technical Data Sheet

PE45683

#### Configuration

- Snap-On QMA Male Connector
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: PE-1/4SFHC, SPP-250-LL-PL, SPO-250, SPF-250

#### Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.35:1
- PIM levels lower than -155 dBc
- Silver Plated Brass Contact

#### Applications

- General Purpose Test
- Custom Cable Assemblies

#### Description

Pasternack's PE45683 QMA male snap-on right angle 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 QMA male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.35:1. The QMA male connector also has low passive intermodulation of -155 dBc. Its right angle body geometry allows for easier connections in tight spaces.

Our QMA male right angle connector PE45683 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                                 |         |         | 1.35:1  |       |
| Passive Intermodulation              |         |         | -155    | 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       | 1.25:1  | 1.35:1 |    |    |    |       |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [QMA Male Right Angle Snap-On Connector Solder Attachment for PE-1/4SFHC, SPP-250-LL-PL, SPO-250, SPF-250 PE45683](#)



## QMA Male Right Angle Snap-On Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

### RF Connectors Technical Data Sheet

PE45683

#### Mechanical Specifications

##### Size

|            |                    |
|------------|--------------------|
| Length     | 0.84 in [21.34 mm] |
| Width/Dia. | 0.41 in [10.41 mm] |
| Weight     | 0.02 lbs [9.07 g]  |

#### Material Specifications

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

#### Environmental Specifications

##### Temperature

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

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

#### Plotted and Other Data

##### Notes:

QMA Male Right Angle Snap-On 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: [QMA Male Right Angle Snap-On Connector Solder Attachment for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250 PE45683](#)

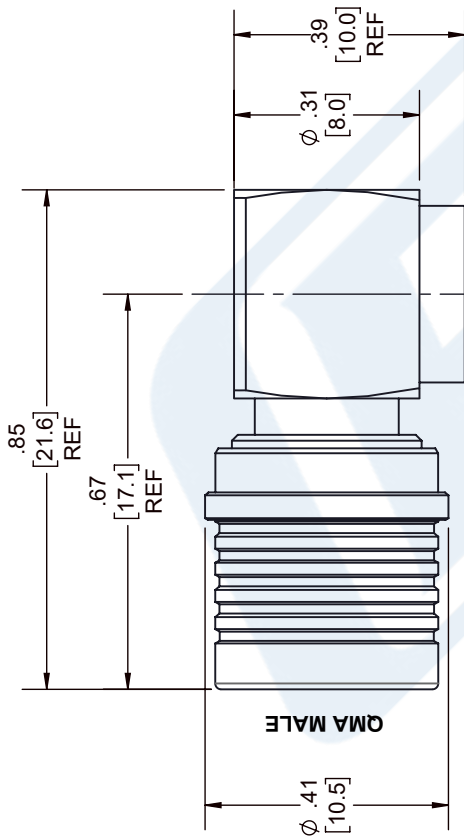
URL: <https://www.pasternack.com/qma-male-snap-on-pe-1-4sfhc-spp-250-llpl-connector-pe45683-p.aspx>

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# PE45683 CAD Drawing

QMA Male Right Angle Snap-On Connector Solder Attachment  
for PE-1/4SFHC, SPP-250-LLPL, SPO-250, SPF-250

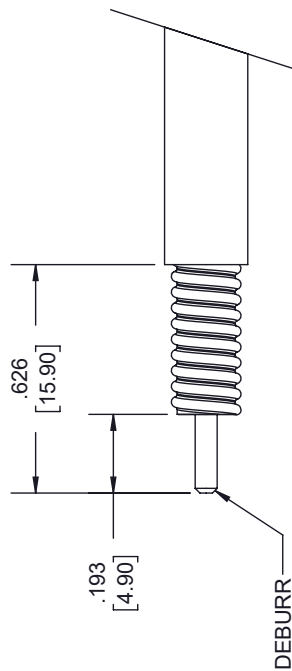
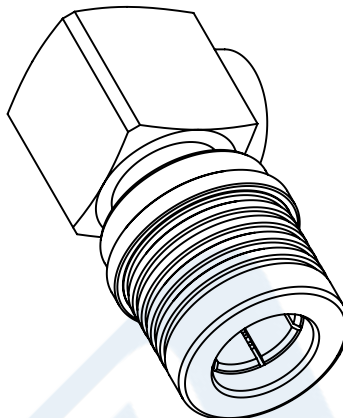
| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 1/18/2021 | S. ELLIS |



NUT



INSULATOR



## STRIPPING DIMENSIONS

### NOTES:

1. CABLE ATTACHMENT:  
• OUTER: SOLDER.  
• INNER: SOLDER.

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

TOLERANCES:  
X = ± .2 [5.08] FRACTIONS  
.XX = ± .02 [ .51 ] ANGLES ± 1°  
.XXX = ± .005 [ .13 ]  
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. PE45683

DRAWN BY K.DANG

CAGE CODE 53919

SIZE A

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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:

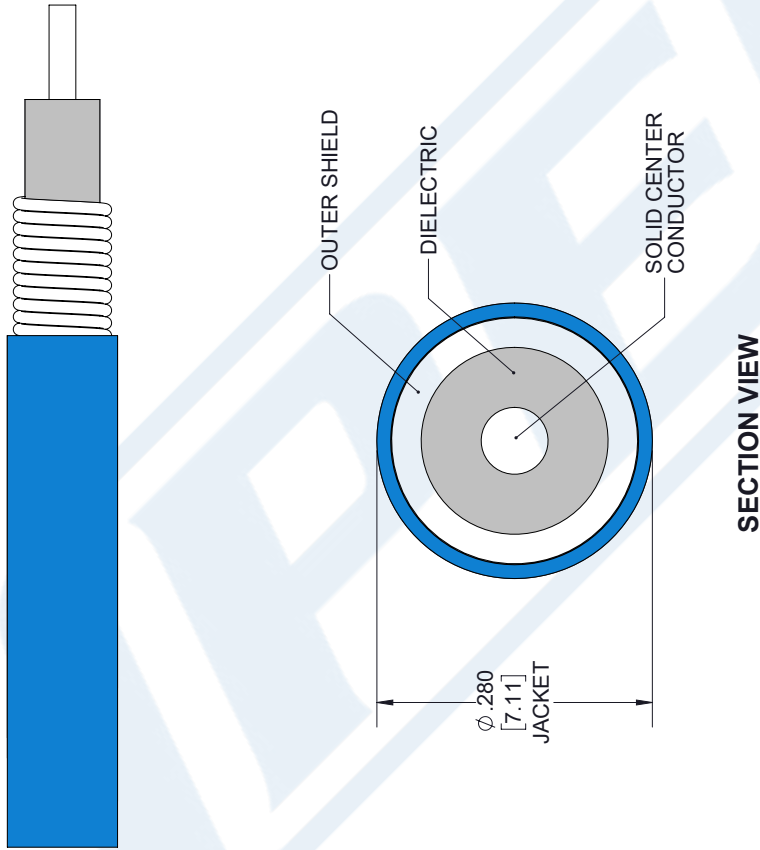
Low Loss SPP-250-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the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