



## N Male Low PIM Connector Clamp/Non-Solder Contact Attachment For 1/2" Superflexible, PE-1/2SFHC

### TECHNICAL DATA SHEET

PE44729

#### N Male Connectors

These Pasternack Enterprises' high performance connectors are designed to fit on most commercially available 1/2" superflexible, spiral corrugated copper cables and aluminum cables. These connectors are perfect for applications requiring low PIM levels, with outstanding RF performance and are easy to install in the field.

Features of the new connectors include:

- Tri-metal coating resulting in a very durable surface with good corrosion protection while providing superior electrical conductivity and exceptional PIM performance
- PIM performance of  $\leq -160$  dBc. VSWR levels of  $\leq 1.10$  up to 3GHz
- Available in 7/16 DIN and Type N series with both male and female interfaces
- O Rings gaskets provide a reliable long term weather seal
- Designed to fit on most commercially available 1/2" corrugated copper and aluminum cables

#### Configuration

|  |                                |
|--|--------------------------------|
| Connector                                | N Male                         |
| Connector Specification                  | IEC 60169-16                   |
| Connector Interface Type                 | 1/2" Superflexible, PE-1/2SFHC |
| Cable Attachment Method (Shield/Contact) | Clamp/Non-Solder Contact       |
| Connector Design                         | Low PIM                        |
| Body Style                               | Straight                       |

#### Electrical Specifications

|   |         |
|---|---------|
| Frequency Range, GHz                                | DC to 3 |
| Impedance, Ohms                                     | 50      |
| Maximum VSWR  | 1.1:1   |
| Maximum Insertion Loss, dB                          | 0.1     |
| Dielectric Withstanding Voltage, Vrms               | 2,500   |
| Maximum Passive Intermodulation (2 x 20 Watts), dBc | -160    |

#### Mechanical Specifications

##### Temperature

|                        |            |
|------------------------|------------|
| Operating Range, deg C | -40 to +85 |
|------------------------|------------|

##### Size

|                     |               |
|---------------------|---------------|
| Length, in [mm]     | 2.07 [52.58]  |
| Width/Dia., in [mm] | 0.85 [21.59]  |
| Weight, lbs [g]     | 0.23 [104.33] |

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 Clamp/Non-Solder Contact Attachment For 1/2" Superflexible, PE-1/2SFHC PE44729](#)

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**Connector**

|                                       |                                      |
|---------------------------------------|--------------------------------------|
| Type                                  | N Male                               |
| Mating Cycles                         | 500                                  |
| Contact Material and Plating          | Spring Copper, Silver                |
| Contact Plating Specification         | 200 [5] $\mu$ in. [ $\mu$ m] minimum |
| Outer Conductor Material and Plating  | Brass, Tri-Metal                     |
| Outer Conductor Plating Specification | 78 [2] $\mu$ in. [ $\mu$ m] minimum  |
| Coupling Nut Material and Plating     | Brass, Nickel                        |
| Coupling Nut Plating Specification    | 200 [5] $\mu$ in. [ $\mu$ m] minimum |
| Hex Size, mm                          | 20                                   |
| Torque, in-lbs [Nm]                   | 15 [1.7]                             |
| Body Material and Plating             | Brass, Tri-Metal                     |
| Body Plating Specification            | 78 [2] $\mu$ in. [ $\mu$ m] minimum  |
| Dielectric Type                       | TPX                                  |

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

|                |     |
|----------------|-----|
| RoHS Compliant | Yes |
|----------------|-----|

**Plotted and Other Data**

|        |                            |
|--------|----------------------------|
| Notes: | Values at 25 °C, sea level |
|--------|----------------------------|

N Male Low PIM Connector Clamp/Non-Solder Contact Attachment For 1/2" Superflexible, PE-1/2SFHC from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and fiber optic products maintain a 99% availability and are part of the broadest selection in the industry.

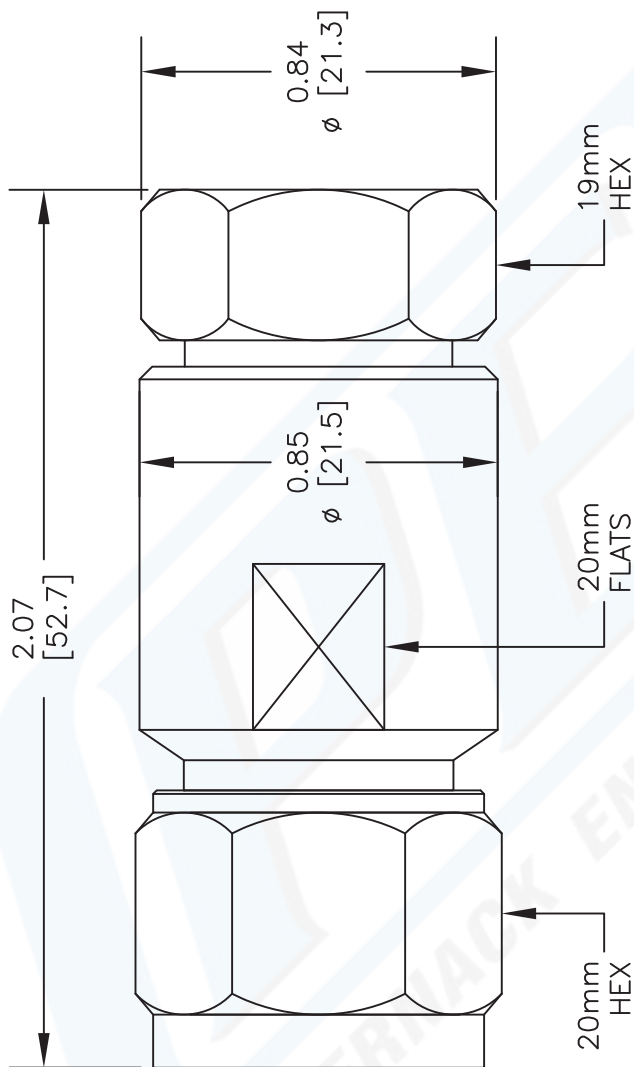
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# PE44729 CAD Drawing

N Male Low PIM Connector Clamp/Non-Solder Contact  
Attachment For 1/2" Superflexible, PE-1/2SFHC



N MALE

DWG TITLE

**PE44729**

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
3. DIMENSIONS ARE IN INCHES [mm].

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COAXIAL & FIBER OPTICS



REV. -

FSCM NO. 53919

DATE 08/14/12

SCALE N/A

SIZE A

2233



## N Male Right Angle Low PIM Connector Clamp/Non-Solder Contact Attachment for 1/2 inch Helical

### RF Connectors Technical Data Sheet

**PE44554**

#### Configuration

- N Male Connector
- IEC 60169-16
- 50 Ohms
- Right Angle Body Geometry
- Connector Interface Types: 1/2 inch Helical, 1/2 inch Superflexible, PE-1/2 Helical, PE-1/2SFHC
- 3/4 inch Hex
- Low PIM Design

#### Features

- Max. Operating Frequency 3 GHz
- Excellent VSWR of 1.1:1
- PIM levels lower than -160 dBc
- Silver Plated Brass Contact
- 5  $\mu$ m minimum contact plating
- IP67 Rated

#### Applications

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

#### Description

Pasternack's PE44554 type N Right Angle, N, Low PIM, Connector 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 3 GHz and offers excellent VSWR of 1.1:1. The type N male connector also has low passive intermodulation of -160 dBc. Its right angle body geometry allows for easier connections in tight spaces. The connector has an IP67 rating to protect against dust and temporary moisture protection under immersion conditions.

Our type N male right angle connector PE44554 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      |         | 3       | GHz   |
| VSWR   |         |         | 1.1:1   |       |
| Insertion Loss                               |         |         | 0.1     | dB    |
| Passive Intermodulation<br>using 2x20W tones |         |         | -160    | dBc   |
| Impedance                                    |         | 50      |         | Ohms  |
| Dielectric Withstanding Voltage (DC)         |         |         | 2,500   | Vdc   |
| Inner Conductor DC Resistance                |         |         | 0.8     | mOhms |
| Outer Conductor DC Resistance                |         |         | 0.4     | mOhms |
| 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: [N Male Right Angle Low PIM Connector Clamp/Non-Solder Contact Attachment for 1/2 inch Helical PE44554](#)



N Male Right Angle Low PIM Connector Clamp/Non-Solder Contact Attachment for 1/2 inch Helical

**RF Connectors**  
**Technical Data Sheet**

**PE44554**

**Mechanical Specifications**

**Size**

|        |                     |
|--------|---------------------|
| Length | 2.77 in [70.36 mm]  |
| Width  | 0.75 in [19.05 mm]  |
| Height | 1.73 in [43.82 mm]  |
| Weight | 0.43 lbs [194.14 g] |

**Material Specifications**

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

**Environmental Specifications**

**Temperature**

|                                |                                      |
|--------------------------------|--------------------------------------|
| Operating Range                | -55 to +155 deg C                    |
| Ingress Protection (IP) Rating | IP67 Rated                           |
| Shock                          | MIL-STD-202, Method 213, Condition I |
| Vibration                      | MIL-STD-202, Method 204, Condition B |
| Thermal Shock                  | MIL-STD-202, Method 107, Condition B |

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

**Plotted and Other Data**

Notes:

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## N Male Right Angle Low PIM Connector Clamp/Non-Solder Contact Attachment for 1/2 inch Helical

### RF Connectors Technical Data Sheet

**PE44554**

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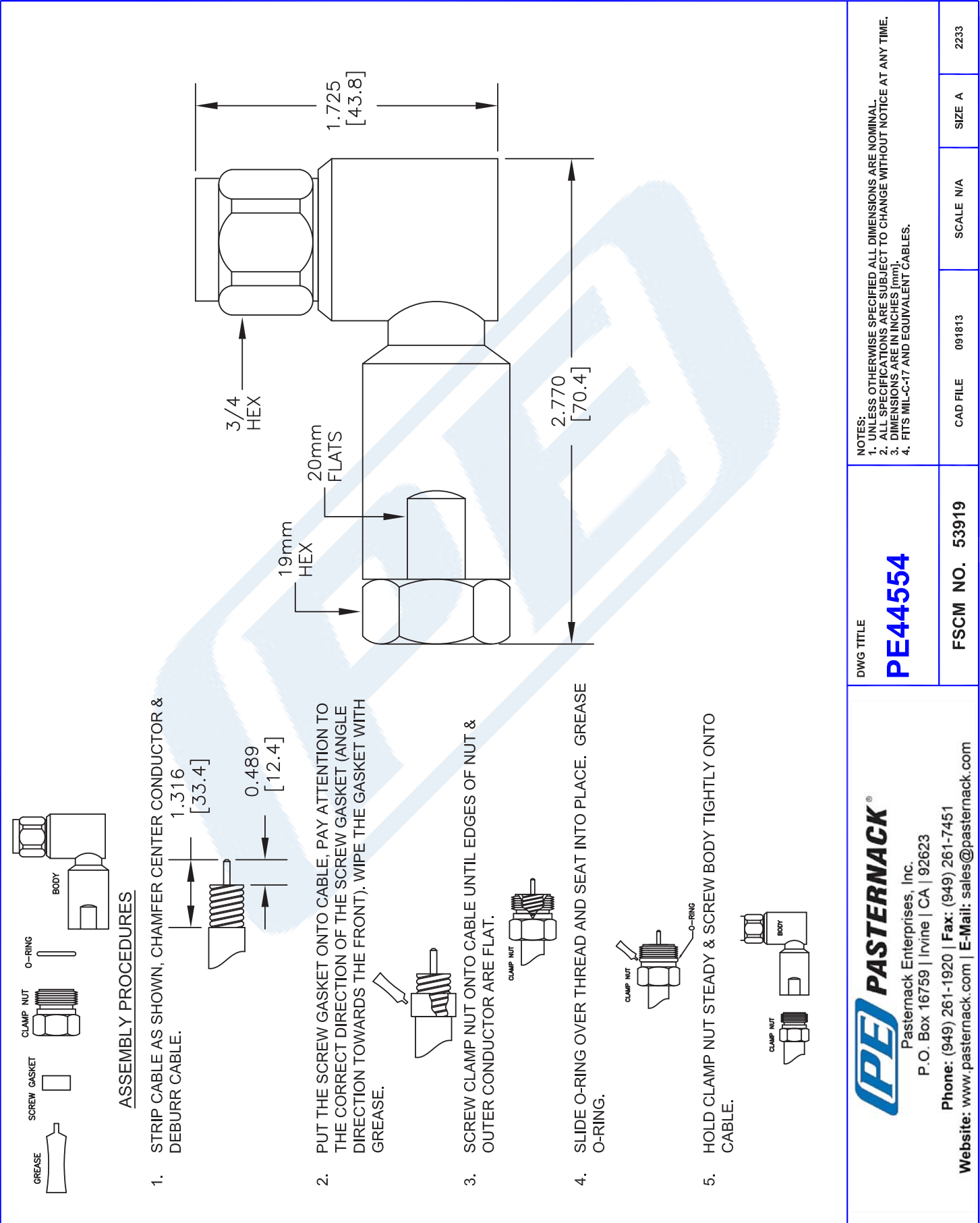
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# PE44554 CAD Drawing

N Male Right Angle Low PIM Connector Clamp/Non-Solder Contact Attachment for 1/2 inch Helical



DWG TITLE

**PE44554**

FSCM NO. 53919

CAD FILE 091813

SCALE N/A

SIZE A

2233



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## Low Loss SPP-500-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

### RF Cables Technical Data Sheet



SPP-500-LLPL

### Times Microwave Systems Coax Cable Specification

#### Configuration

- Low Loss, Plenum Corrugated Cable
- 1 Shield(s)

#### Features

- PIM < -160 dBc
- UL910 Plenum Rated Cable
- Lightweight and Extremely Flexible
- Low Loss Dielectric 76% VoP
- Shielding >100 dB
- UV Resistant FEP Jacket

#### Applications

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

#### Description

SPP-500-LLPL low loss, low PIM Plenum Rated coax cable by Times Microwave is part of our full line of RF components available for same-day shipping. The SPP-500-LLPL coaxial cable features a low loss dielectric with an 76% velocity of propagation (VoP), BCCAL center conductor and a helically corrugated, copper outer conductor. This cable is UL listed, type CMP (plenum) rated coax. These features combine to make the Times Microwave SPP-500-LLPL a super flexible, low PIM coax cable that is well suited for use as an antenna jumper cable, Distributed Antenna Systems (DAS), small cell, and other applications where Fire Rated material is required. The durable FEP outer jacket makes this cable appropriate for a wide range of indoor or outdoor applications.

Our datasheet specifications and drawing with dimensions for Times Microwave SPP-500-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-500-LLPL low PIM cable assembly for the job. See our web site to find the right connector cable combination for your application.

#### Electrical Specifications

| Description             | Minimum | Typical      | Maximum | Units        |
|-------------------------|---------|--------------|---------|--------------|
| Frequency Range         | DC      |              | 5.8     | GHz          |
| Impedance               |         | 50           |         | Ohms         |
| Velocity of Propagation |         | 76           |         | %            |
| Passive Intermodulation |         |              | -160    | dBc          |
| Nominal Capacitance     |         | 26.2 [85.96] |         | pF/ft [pF/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-500-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-500-LLPL](#)



Low Loss SPP-500-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

RF Cables  
Technical Data Sheet



SPP-500-LLPL

**Performance by Frequency Band**

| Description           | F1    | F2    | F3    | F4    | F5    | Units    |
|-----------------------|-------|-------|-------|-------|-------|----------|
| Frequency             | 0.45  | 1.5   | 2     | 2.5   | 5.8   | GHz      |
| Attenuation, Typ      | 2.29  | 4.41  | 5.12  | 5.82  | 9.23  | dB/100ft |
|                       | 7.51  | 14.47 | 16.8  | 19.09 | 30.28 | dB/100m  |
| Input Power (CW), Max | 2,500 | 1,340 | 1,150 | 1,020 | 650   | Watts    |

**Mechanical Specifications**

|                                 |                          |
|---------------------------------|--------------------------|
| Diameter                        | 0.5 in [12.7 mm]         |
| Weight                          | 0.072 lbs/ft [0.11 Kg/m] |
| Min. Bend Radius (Installation) | 1.5 in [38.1 mm]         |

**Construction Specifications**

| Description     | Material and Plating              | Diameter          |
|-----------------|-----------------------------------|-------------------|
| Inner Conductor | Copper Clad Aluminum <sup>1</sup> | 0.136 in 3.45 mm  |
| Conductor Type  | Solid                             |                   |
| Dielectric      | PTFE                              | 0.37 in 9.4 mm    |
| Outer Conductor | Copper<br>Corrugated              | 0.472 in 11.99 mm |
| Jacket          | FEP, Blue                         | 0.5 in [12.7 mm]  |

**Environmental Specifications**

|                    |                   |
|--------------------|-------------------|
| <b>Temperature</b> |                   |
| 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-500-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible SPP-500-LLPL](#)



## Low Loss SPP-500-LLPL Plenum Rated Corrugated Coax Cable with Blue FEP Jacket Superflexible

### RF Cables Technical Data Sheet



SPP-500-LLPL

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

#### Plotted and Other Data

Notes:

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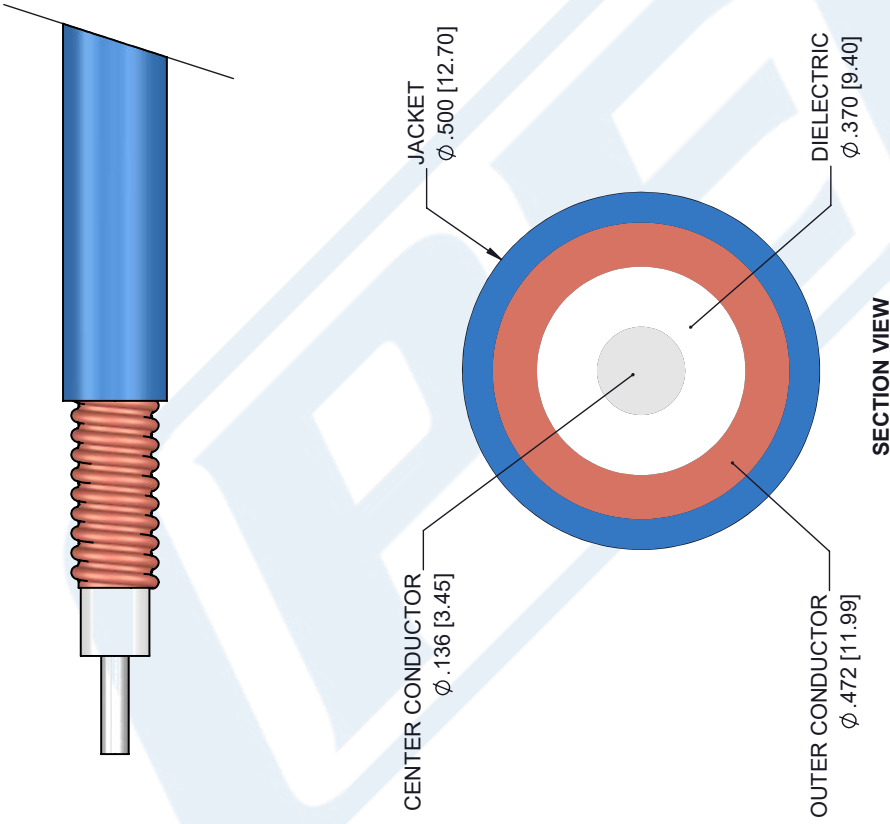
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URL: <https://www.pasternack.com/low-loss-corrugated-spp500llpl-fep-jacket-spp-500-llpl-p.aspx>

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**TIMES** MICROWAVE SYSTEMS **SPP-500-LLPL CAD Drawing**  
 Low Loss SPP-500-LLPL Plenum Rated Corrugated Coax  
 Cable with Blue FEP Jacket Superflexible

| REVISIONS |                 |          |          |
|-----------|-----------------|----------|----------|
| REV.      | DESCRIPTION     | DATE     | APPROVED |
| A         | INITIAL RELEASE | 03/04/19 | S. ELLIS |



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

**TOLERANCES:**  
 X±.2 [5.08] FRACTIONS ±1/32  
 XX±.01 [.25] ANGLES ± 1°  
 XXX±.005 [1.3] ARE FOR REFERENCE ONLY.

ALL DIMENSIONS SHOWN  
 ARE FOR REFERENCE ONLY.  
 THIRD-ANGLE PROJECTION

**(PE) PASTERNAK**  
 an INFINITO brand

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SHEET 1 OF 1  
 SCALE N/A

SIZE CAGE DRAWN BY PART NUMBER REV  
 A 53919 K.DANG SPP-500-LLPL A

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