

N Male Low PIM Connector Solder Attachment for 1/2" Helical, 1/2" Superflexible, SPP- 500-LLPL, SPO-500, SPF-500



PE45994

Configuration

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: 1/2" Helical, 1/2" Superflexible, SPP-500-LLPL, SPO-500, SPF-500
- Low PIM Design

Features

- Max. Operating Frequency 6 GHz
- Silver Plated Brass Contact
- Max of VSWR 1.1:1 at 1GHz, Max of VSWR 1.15:1 at 3.7GHz, Max of VSWR 1.25:1 at 6GHz
- PIM is less than -160dBc at 1.8GHz typical

Applications

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

Description

Pasternack's PE45994 type N , 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 6 GHz.

Our type N male connector PE45994 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 |
| Dielectric Withstanding Voltage (AC) | | | 1,000 | Vrms |
| Impedance | | 50 | | Ohms |

Mechanical Specifications

Size

| | |
|--------|---------------------|
| Length | 1.22 in [30.99 mm] |
| Width | 0.79 in [20.07 mm] |
| Height | 0.85 in [21.59 mm] |
| Weight | 0.072 lbs [32.66 g] |

Material Specifications

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

N Male Low PIM Connector Solder Attachment for 1/2" Helical, 1/2" Superflexible, SPP- 500-LLPL, SPO-500, SPF-500



PE45994

Environmental Specifications

Temperature

Operating Range -40 to +155 deg C

Environmental Specification Notes:
IEC 61169-16

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

Plotted and Other Data

Notes:

N Male Low PIM Connector Solder Attachment for 1/2" Helical, 1/2" Superflexible, SPP-500-LLPL, SPO-500, SPF-500 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.

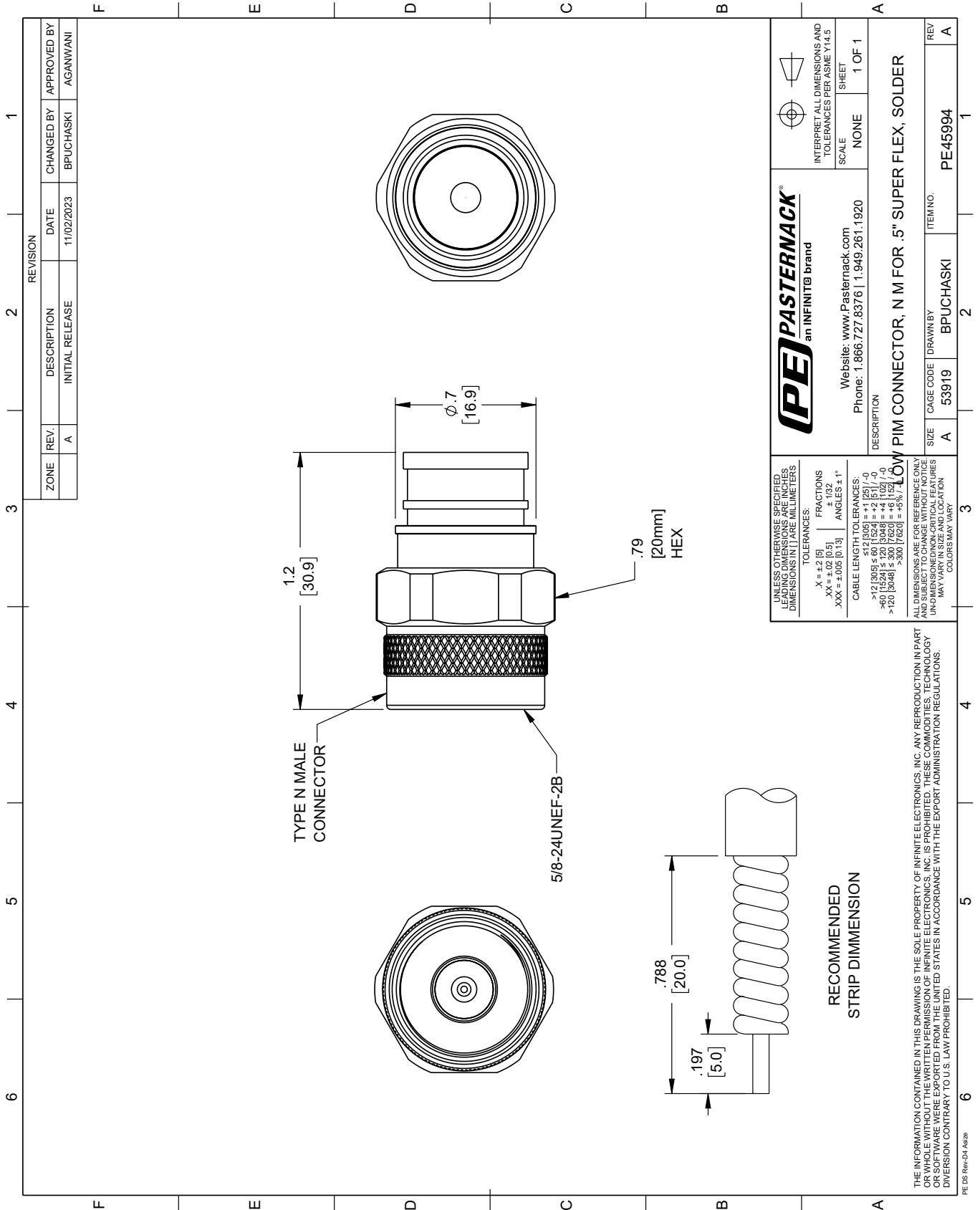
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for 1/2" Helical, 1/2" Superflexible, SPP-500-LLPL, SPO-500, SPF-500 PE45994](#)

URL: <https://www.pasternack.com/n-male-1-2-inch-helical-1-2-inch-superflexible-connector-pe45994-p.aspx>

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PE45994 CAD Drawing

N Male Low PIM Connector Solder Attachment for 1/2" Helical, 1/2" Superflexible, SPP-500-LLPL, SPO-500, SPF-500



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 Phone: 1.866.727.8376 | 1.949.261.1920

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE SHEET: 1 OF 1

DESCRIPTION: LOW PIM CONNECTOR, N M FOR .5" SUPER FLEX, SOLDER

| SIZE | CAGE CODE | DRAWN BY | ITEM NO. |
|------|-----------|-----------|----------|
| A | 53919 | BPUCHASKI | PE45994 |



N Male Right Angle Low PIM Connector Solder Attachment for SPO-500, SPF-500

RF Connectors Technical Data Sheet



TC-SPO500-NM-RA-LP

Times Microwave Systems Connector Specification

Configuration

- N Male Connector
- 50 Ohms
- Right Angle Body Geometry
- SPO-500, SPF-500 Interface Type
- Solder/Solder Attachment
- Low PIM Design

Features

- Max. Operating Frequency 6 GHz
- Good VSWR of 1.35:1
- PIM levels lower than -160 dBc
- Silver Plated Brass Contact
- 200 μ m contact plating

Applications

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

Description

Times Microwave's TC-SPO500-NM-RA-LP type N male right angle connector offered by Pasternack with solder/solder attachment for Times' SPO-500 and SPF-500 is part of our full line of RF components available for same-day shipping. Times Microwave's type N male connector operates up to a maximum frequency of 6 GHz and offers good VSWR of 1.35:1. The Times type N male connector also has low passive intermodulation of -160 dBc. Its right angle body geometry allows for easier connections in tight spaces.

Times Microwave's type N male right angle connector TC-SPO500-NM-RA-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 | | | 1.35:1 | |
| Insertion Loss | | | 0.25 | dB |
| Passive Intermodulation | | | -160 | dBc |
| Operating Voltage (DC) | | | 2,500 | Vdc |
| Insulation Resistance | 10,000 | | | 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 Solder Attachment for SPO-500, SPF-500 TC-SPO500-NM-RA-LP](#)



N Male Right Angle Low PIM Connector Solder Attachment for SPO-500, SPF-500

RF Connectors Technical Data Sheet



TC-SPO500-NM-RA-LP

Performance by Frequency

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------|---------|--------|----|----|----|-------|
| Frequency Range | DC to 3 | 3 to 6 | | | | GHz |
| VSWR, Max | 1.1:1 | 1.35:1 | | | | |

Electrical Specification Notes:
Insertion Loss is $0.1 \cdot \sqrt{f(\text{GHz})}$

Mechanical Specifications

Size

Length 1.29 in [32.77 mm]
Height 1.57 in [39.88 mm]

Mating Torque 6 to 10 in-lbs [0.68 to 1.13 Nm]

Material Specifications

| Description | Material | Plating |
|--------------|----------|---------------------------|
| Contact | Brass | Silver 200 μ in |
| Insulation | PTFE | |
| Body | Brass | Tri-Metal 100 μ in |
| Coupling Nut | Brass | Tri-Metal 100 μ in |
| Gasket | Silicone | |

Environmental Specifications

Temperature

Operating Range -55 to +155 deg C
Shock US MIL-STD 202G
Vibration US MIL-STD 202G
Thermal Shock US MIL-STD 202G

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: [N Male Right Angle Low PIM Connector Solder Attachment for SPO-500, SPF-500 TC-SPO500-NM-RA-LP](#)



N Male Right Angle Low PIM Connector Solder Attachment for SPO-500, SPF-500

RF Connectors Technical Data Sheet



TC-SPO500-NM-RA-LP

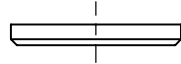
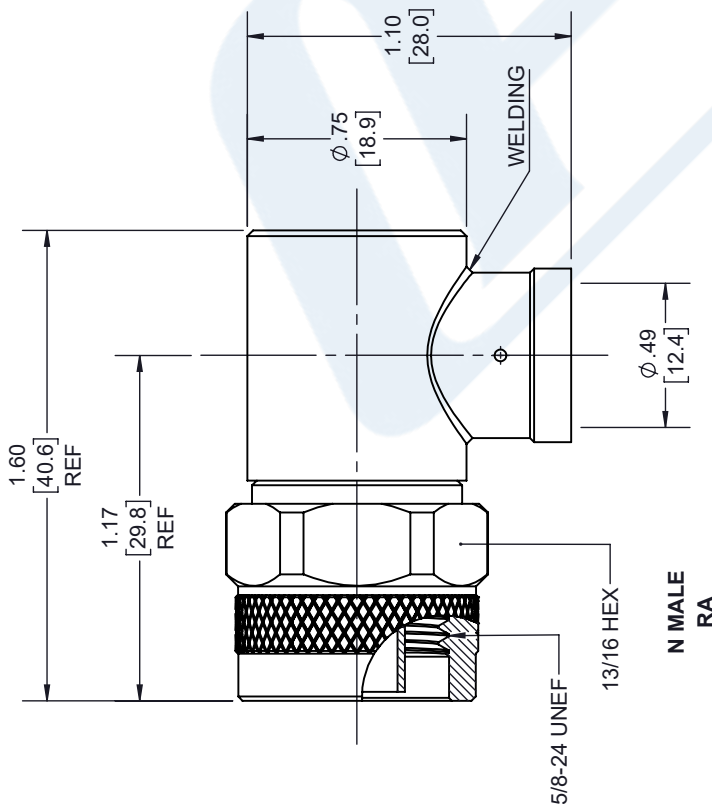
N Male Right Angle Low PIM Connector Solder Attachment for SPO-500, SPF-500 from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Right Angle Low PIM Connector Solder Attachment for SPO-500, SPF-500 TC-SPO500-NM-RA-LP](https://www.pasternack.com/n-male-spo-500-spf-500-connector-tc-spo500-nm-ra-lp-p.aspx)

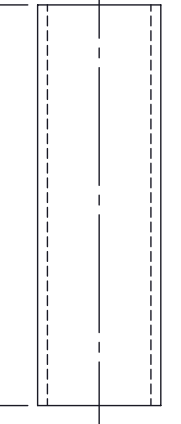
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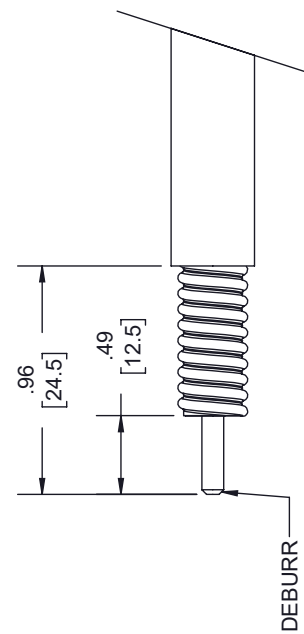
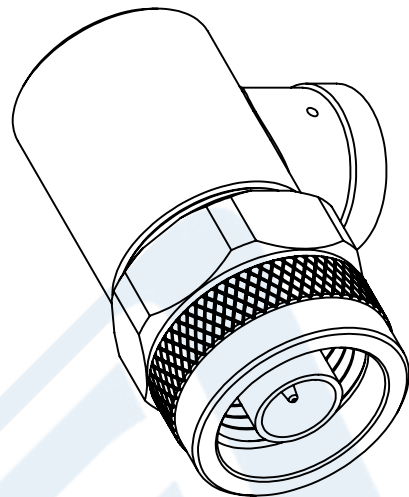
| REVISIONS | | | |
|-----------|-----------------|----------|----------|
| REV. | DESCRIPTION | DATE | APPROVED |
| A | INITIAL RELEASE | 05/30/19 | S. ELLIS |



GASKET



SHRINK TUBE



STRIPPING DIMENSIONS

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

| | |
|--|-------------|
| UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS | |
| TOLERANCES: | FRACTIONS |
| X±.2 [5.08] | +1/32 |
| XX±.01 [0.25] | ANGLES ± 1° |
| XXX±.005 [0.13] | |
| ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. | |
| THIRD-ANGLE PROJECTION | |

| | | | |
|--|-----------------|---|-------|
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| CAGE NUMBER A 53919 | DRAWN BY K.DANG | PART NUMBER TC-SPO500-NM-RA-LP | REV A |



Low Loss SPF-500 Rated Corrugated Coax Cable with Black FRPE Jacket Superflexible Fire Rated

RF Cables Technical Data Sheet



SPF-500

Times Microwave Systems Coax Cable Specification

Configuration

- Low Loss Corrugated Cable
- 1 Shield(s)

Features

- PIM < -160 dBc
- UL Listed, Type CMR Riser Rated Cable
- Lightweight and Extremely Flexible
- Low Loss Dielectric 83% VoP
- Shielding > 100 dB
- Fire Rated Low Smoke Polyolefin Jacket

Applications

- Distributed Antenna Systems (DAS)
- UL Listed, Type CMR Riser
- Applications
- Low Smoke Requirements
- Small Cell
- Outdoor Applications
- Antenna Jumpers

Description

SPF-500 low loss, low PIM Fire Retardant coax cable by Times Microwave is part of our full line of RF components available for same-day shipping. The SPF-500 coaxial cable features a low loss dielectric with an 83% velocity of propagation (VoP), BCCAL center conductor and a helically corrugated, copper outer conductor. This cable is UL listed, type CMR (riser) rated coax. These features combine to make the Times Microwave SPF-500 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 UV and sunlight resistant black flame retardant, non-halogen, polyethylene jacket makes this cable appropriate for a wide range of indoor or outdoor applications.

Our datasheet specifications and drawing with dimensions for Times Microwave SPF-500 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 SPF-500 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 | | 6 | GHz |
| Impedance | | 50 | | Ohms |
| Velocity of Propagation | | 83 | | % |
| Passive Intermodulation | | | -158 | dBc |
| Nominal Capacitance | | 24 [78.74] | | 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 SPF-500 Rated Corrugated Coax Cable with Black FRPE Jacket Superflexible Fire Rated SPF-500](#)



Low Loss SPF-500 Rated Corrugated Coax Cable
with Black FRPE Jacket Superflexible Fire Rated

RF Cables
Technical Data Sheet

Performance by Frequency Band

| Description | F1 | F2 | F3 | F4 | F5 | Units |
|-----------------------|-------|-------|------|------|----|----------|
| Frequency | 0.5 | 1 | 2 | 6 | | GHz |
| Attenuation, Typ | 2.43 | 3.51 | 5.12 | 9.6 | | dB/100ft |
| | 7.97 | 11.52 | 16.8 | 31.5 | | dB/100m |
| Input Power (CW), Max | 1,260 | 900 | 610 | 260 | | Watts |

Mechanical Specifications

| | |
|---------------------------------|--------------------------|
| Diameter | 0.545 in [13.84 mm] |
| Weight | 0.126 lbs/ft [0.19 Kg/m] |
| Min. Bend Radius (Installation) | 2.25 in [57.15 mm] |

Construction Specifications

| Description | Material and Plating | Diameter |
|-----------------|-----------------------------------|---------------------|
| Inner Conductor | Copper Clad Aluminum ¹ | 0.14 in 3.56 mm |
| Conductor Type | Solid | |
| Dielectric | Foam PE | 0.35 in 8.89 mm |
| Outer Conductor | Copper Corrugated | 0.48 in 12.19 mm |
| Jacket | FRPE, Black | 0.545 in [13.84 mm] |

Environmental Specifications

| | |
|--------------------|------------------|
| Temperature | |
| Operating Range | -40 to +85 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 SPF-500 Rated Corrugated Coax Cable with Black FRPE Jacket Superflexible Fire Rated SPF-500](#)



Low Loss SPF-500 Rated Corrugated Coax Cable with Black FRPE Jacket Superflexible Fire Rated

RF Cables Technical Data Sheet

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

Plotted and Other Data

Notes:

Low Loss SPF-500 Rated Corrugated Coax Cable with Black FRPE Jacket Superflexible Fire Rated 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.

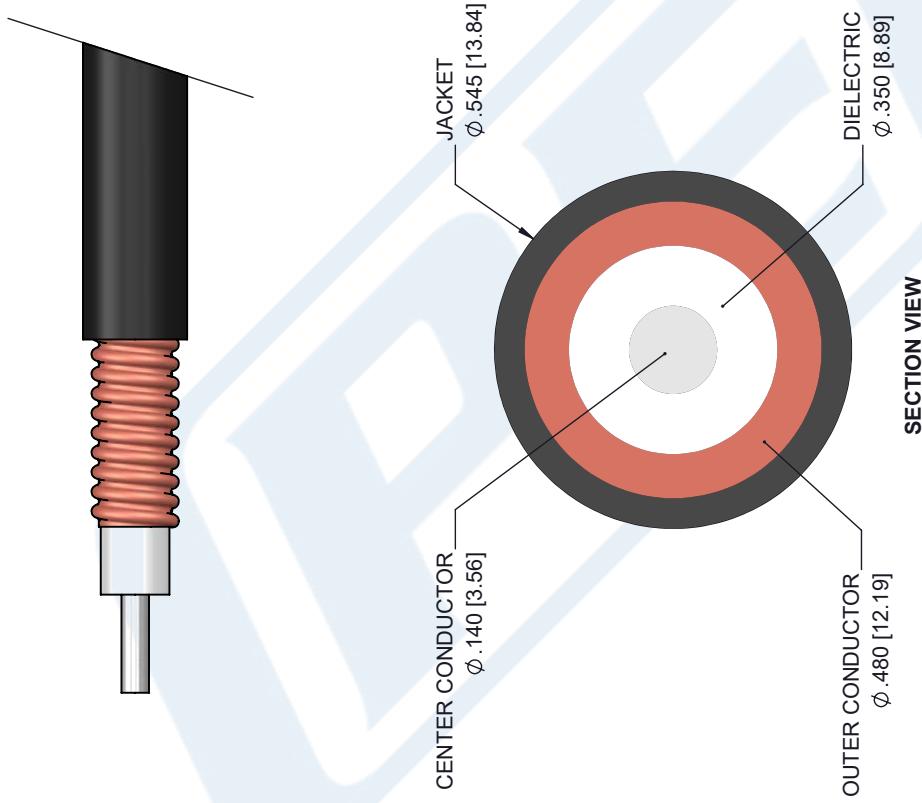
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TIMES MICROWAVE SYSTEMS **SPF-500 CAD Drawing**
 Low Loss SPF-500 Rated Corrugated Coax Cable with
 Black FRPE Jacket Superflexible Fire Rated

| REVISIONS | | | |
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| A | INITIAL RELEASE | 03/04/19 | S. ELLIS |



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| THIRD-ANGLE PROJECTION | |

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| CAGE CODE A 53919 | DRAWN BY K.DANG | SCALE N/A | PART NUMBER SPF-500 |

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