



## 7/16 DIN Male Low PIM Connector Solder Attachment for SPP-500-LLPL, SPO-500, SPF-500

### RF Connectors Technical Data Sheet



TC-500-716M-LP

### Times Microwave Systems Connector Specification

#### Configuration

- 7/16 DIN Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: SPP-500-LLPL, SPO-500, SPF-500
- Low PIM Design

#### Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.25:1
- PIM levels lower than -160 dBc
- Silver Plated Phosphor Bronze Contact
- 200  $\mu$ m contact plating

#### Applications

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

#### Description

Times Microwave's TC-500-716M-LP 7/16 DIN male connector offered by Pasternack with solder/solder attachment for Times' SPP-500-LLPL, SPO-500 and SPF-500 is part of our full line of RF components available for same-day shipping. Times Microwave's 7/16 DIN male connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.25:1. The Times 7/16 DIN male connector also has low passive intermodulation of -160 dBc.

Times Microwave's 7/16 DIN male connector TC-500-716M-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)  |         |         | 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: [7/16 DIN Male Low PIM Connector Solder Attachment for SPP-500-LLPL, SPO-500, SPF-500 TC-500-716M-LP](#)



7/16 DIN Male Low PIM Connector Solder Attachment  
for SPP-500-LLPL, SPO-500, SPF-500

RF Connectors  
Technical Data Sheet



TC-500-716M-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   | 1.25:1 |    |    |    |       |

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

**Mechanical Specifications**

**Size**

Length 0.992 in [25.2 mm]  
Width/Dia. 1.25 in [31.75 mm]

Mating Torque 221.27 in-lbs [25.00 Nm]

**Material Specifications**

| Description  | Material        | Plating             |
|--------------|-----------------|---------------------|
| Contact      | Phosphor Bronze | Silver<br>200 µin   |
| Insulation   | PTFE            |                     |
| Body         | Brass           | Tri-Metal<br>80 µin |
| Coupling Nut | Brass           | Tri-Metal<br>80 µin |
| Gasket       | Silicone Rubber |                     |

**Environmental Specifications**

**Temperature**

Operating Range -55 to +125 deg C  
Shock US MIL-STD 202G, Meth. 213, Cond. I  
Vibration US MIL-STD 202G, Meth. 204, Cond. B  
Thermal Shock US MIL-STD 202G, Meth. 107, Cond. B

**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: [7/16 DIN Male Low PIM Connector Solder Attachment for SPP-500-LLPL, SPO-500, SPF-500 TC-500-716M-LP](#)



## 7/16 DIN Male Low PIM Connector Solder Attachment for SPP-500-LLPL, SPO-500, SPF-500

### RF Connectors Technical Data Sheet



TC-500-716M-LP

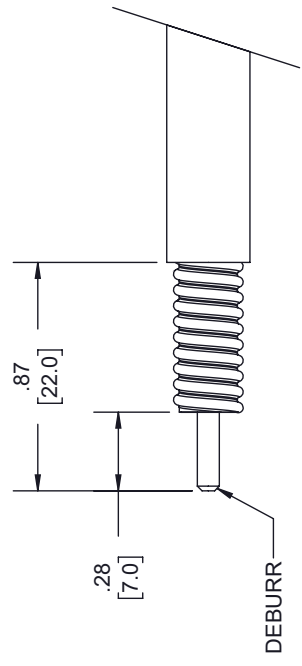
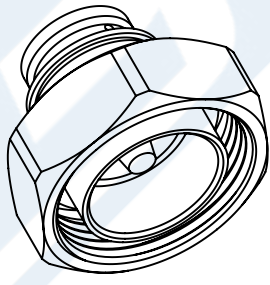
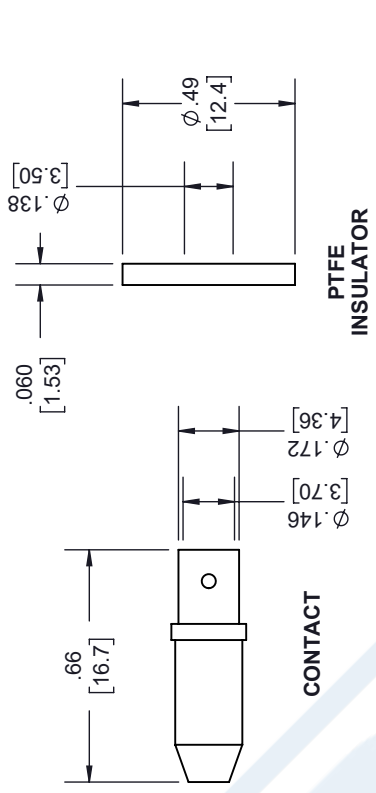
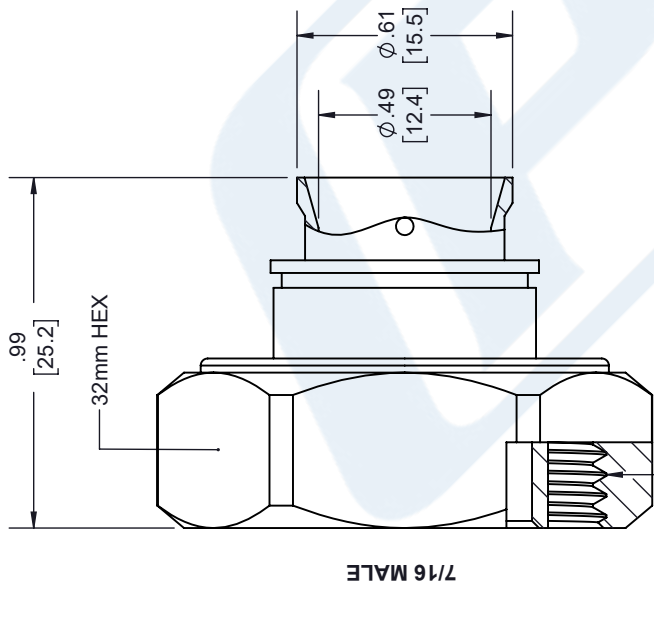
7/16 DIN Male Low PIM Connector Solder Attachment for SPP-500-LLPL, SPO-500, SPF-500 from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [7/16 DIN Male Low PIM Connector Solder Attachment for SPP-500-LLPL, SPO-500, SPF-500 TC-500-716M-LP](https://www.pasternack.com/7-16-din-male-spp-500-llpl-connector-tc-500-716m-lp-p.aspx)

URL: <https://www.pasternack.com/7-16-din-male-spp-500-llpl-connector-tc-500-716m-lp-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

| REVISIONS |                 |           |          |
|-----------|-----------------|-----------|----------|
| REV.      | DESCRIPTION     | DATE      | APPROVED |
| A         | INITIAL RELEASE | 11/5/2020 | S. ELLIS |



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

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

**TOLERANCES:**

|              |        |                               |                |
|--------------|--------|-------------------------------|----------------|
| .X = ±.2     | [.508] | FRACTIONS                     | ± 1/32         |
| .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 ARE FOR REFERENCE ONLY.

**THIRD-ANGLE PROJECTION**

THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE N/A

REV A

**PE PASTERNAK**  
 an INFINITE brand

Pasternack Enterprises, Inc.  
 P.O. Box 16759, Irvine, CA 92623.  
 Phone: 1.949.261.1920 | 1.866.727.8376  
 Fax: 1.949.261.7451  
 Website: www.pasternack.com  
 E-mail: sales@pasternack.com

|      |           |          |                |
|------|-----------|----------|----------------|
| SIZE | CAGE CODE | DRAWN BY | ITEM NO.       |
| A    | 53919     | K.DANG   | TC-500-716M-LP |

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.



## 4.3-10 Male Low PIM Connector Solder Attachment for PE-1/2SFHC, IP67 Rated

### RF Connectors Technical Data Sheet

PE45299

#### Configuration

- 4.3-10 Male Connector
- Straight Body Geometry
- PE-1/2SFHC Interface Type
- Solder/Solder Attachment
- 22 mm Hex
- Low PIM Design

#### Features

- Max. Operating Frequency 6 GHz
- Excellent VSWR of 1.15:1
- PIM levels lower than -166 dBc
- Silver Plated Brass Contact
- IP 67 (Mated)
- Low Coupling Torque
- Corrosion Resistant Tri-Metal Finish
- Low-PIM rating of -166 dBc

#### Applications

- General Purpose Test
- Wireless Communications
- Custom Cable Assemblies
- Low PIM Applications
- Mobile Communications Systems
- Base Stations
- Distributed Antenna Systems (DAS)
- Small Cells
- Feeder Cables

#### Description

Pasternack's PE45299 4.3-10 male connector with solder/solder attachment for PE-1/2SFHC is part of our full line of RF components available for same-day shipping. Our 4.3-10 male connector operates up to a maximum frequency of 6 GHz and offers excellent VSWR of 1.15:1. The 4.3-10 male connector also has low passive intermodulation of -166 dBc. The connector has an IP67 rating to protect against dust and temporary moisture protection under immersion conditions.

Our 4.3-10 male connector PE45299 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  |       |
| Insertion Loss                       |         |         | 0.13    | dB    |
| Passive Intermodulation              |         | -166    |         | dBc   |
| Operating Voltage (AC)               |         |         | 1,000   | Vrms  |
| Dielectric Withstanding Voltage (AC) |         |         | 2,500   | 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 Connector Solder Attachment for PE-1/2SFHC, IP67 Rated PE45299](#)



4.3-10 Male Low PIM Connector Solder Attachment for PE-1/2SFHC, IP67 Rated

RF Connectors Technical Data Sheet

PE45299

**Mechanical Specifications**

**Size**

|               |                     |
|---------------|---------------------|
| Length        | 1.1 in [27.94 mm]   |
| Width/Dia.    | 0.96 in [24.38 mm]  |
| Weight        | 0.067 lbs [30.39 g] |
| Mating Cycles | 100 Cycles          |

**Material Specifications**

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

**Environmental Specifications**

**Temperature**

|                                |                  |
|--------------------------------|------------------|
| Operating Range                | -55 to +90 deg C |
| Ingress Protection (IP) Rating | IP 67 (Mated)    |

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 Connector Solder Attachment for PE-1/2SFHC, IP67 Rated PE45299](#)



## 4.3-10 Male Low PIM Connector Solder Attachment for PE-1/2SFHC, IP67 Rated

### RF Connectors Technical Data Sheet

PE45299

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

#### Plotted and Other Data

Notes:

4.3-10 Male Low PIM Connector Solder Attachment for PE-1/2SFHC, IP67 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.

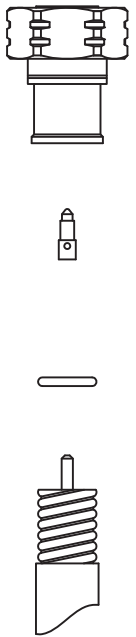
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [4.3-10 Male Low PIM Connector Solder Attachment for PE-1/2SFHC, IP67 Rated PE45299](#)

URL: <https://www.pasternack.com/4.3-10-male-pe-1-2sfhc-connector-pe45299-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE45299 CAD Drawing

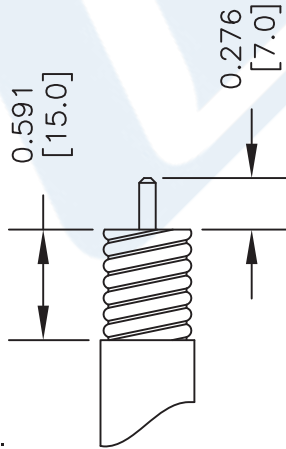
4.3-10 Male Low PIM Connector Solder Attachment for PE-1/2SFHC, IP67 Rated



CABLE INSULATOR CONTACT BODY

### ASSEMBLY PROCEDURES

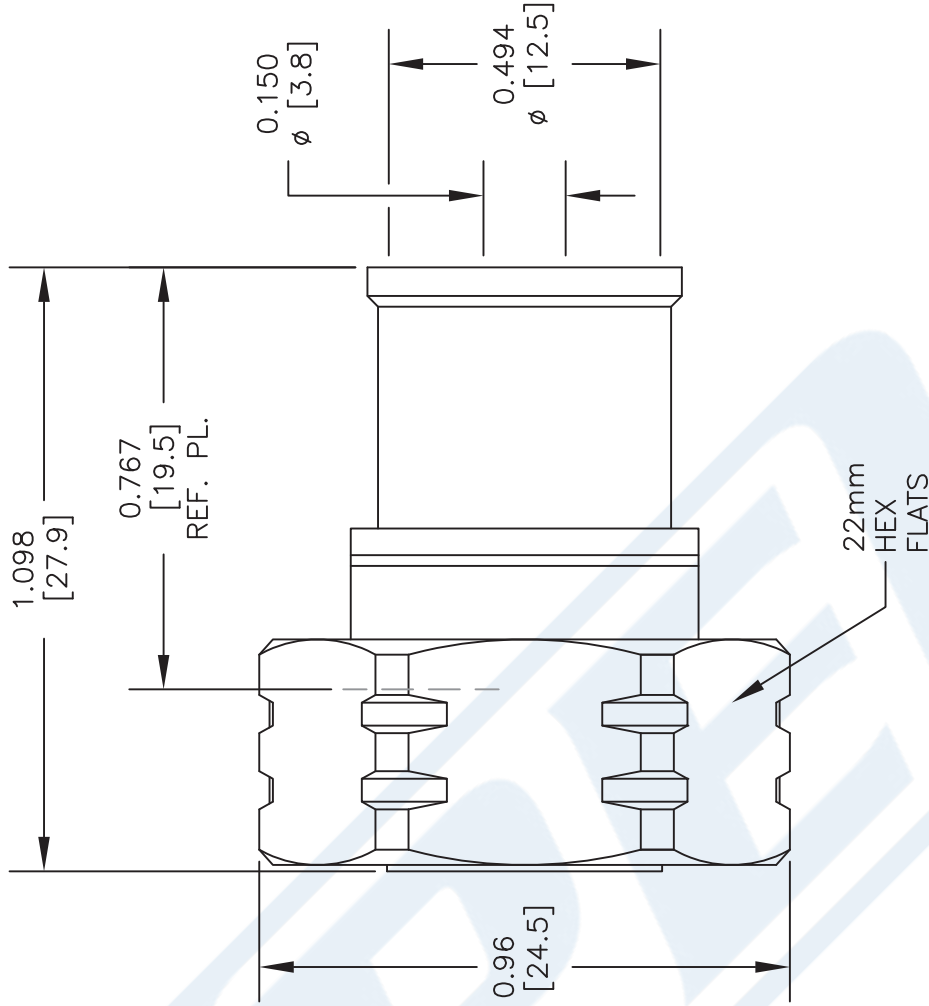
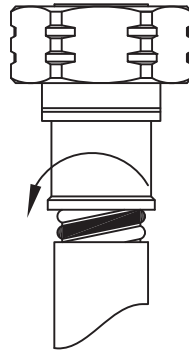
1. STRIP CABLE AS SHOWN, CHAMFER CENTER CONDUCTOR & DEBURR CABLE.



2. INSERT INSULATOR CLIP. INSERT CENTER CONTACT AND SOLDER. WRAP THE CABLE BY SOLDER WIRE (Dia 1.2mm).



3. PUSH THE CONNECTOR BODY INTO THE CABLE, UNTIL IT STOPS. SOLDER THE CONNECTOR BODY WITH CABLE.



### STANDARD TOLERANCES

.X ±0.2  
.XX ±0.1  
.XXX ±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

### NOTES:

- UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
- ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
- DIMENSIONS ARE IN INCHES [mm].

DWG TITLE

**PE45299**

CAGE CODE 53919

CAD FILE 011917

SCALE N/A

SIZE A

2233

**(PE) PASTERNAK®**  
THE ENGINEER'S RF SOURCE

Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: www.pasternack.com | E-Mail: sales@pasternack.com



# 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



SPF-500

#### 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 <sup>1</sup> | 0.14 in 3.56 mm     |
| Conductor Type  | Solid                             |                     |
| Dielectric      | Foam PE                           | 0.35 in 8.89 mm     |
| Outer Conductor | Copper<br>Corrugated              | 0.48 in 12.19 mm    |
| Jacket          | FRPE, Black                       | 0.545 in [13.84 mm] |

#### Environmental Specifications

|                    |                  |
|--------------------|------------------|
| <b>Temperature</b> |                  |
| 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.

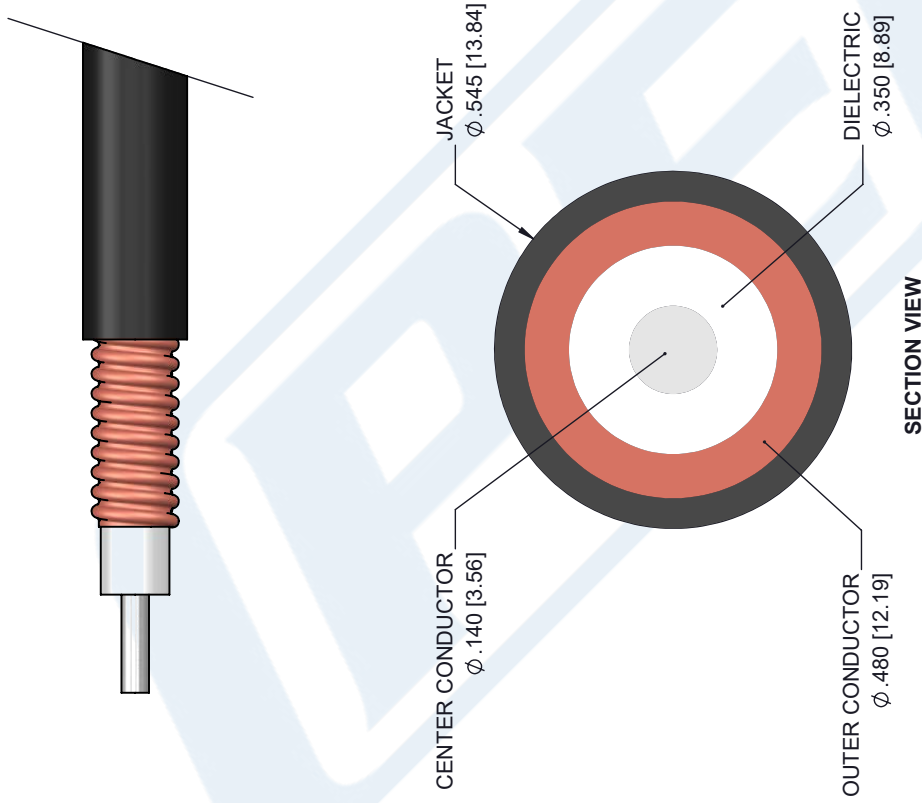
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss SPF-500 Rated Corrugated Coax Cable with Black FRPE Jacket Superflexible Fire Rated SPF-500](#)

URL: <https://www.pasternack.com/low-loss-corrugated-spf500-frpe-jacket-spf-500-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

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

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



|  |             |
|--|-------------|
| UNLESS OTHERWISE SPECIFIED<br>LEADING DIMENSIONS ARE INCHES<br>DIMENSIONS IN [ ] ARE MILLIMETERS |             |
| TOLERANCES:  | FRACTIONS   |
| X±.2 [5.08]  | +1/32       |
| XX±.01 [.25]   |             |
| XXX±.005 [.13]   | ANGLES ± 1° |
| ALL DIMENSIONS SHOWN<br>ARE FOR REFERENCE ONLY.  |             |
| THIRD-ANGLE PROJECTION   |             |

|  |                    |  |                        |
|--|--------------------|--|------------------------|
|  |                    | THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED. |                        |
| Pasternack Enterprises, Inc.<br>P. O. Box 16759, Irvine, CA 92623.<br>Phone: 1.949.261.1920   1.866.727.8376<br>Fax: 1.949.261.7451<br>www.pasternack.com   e-mail: sales@pasternack.com |                    | SHEET 1 OF 1   | REV A                  |
| CAGE CODE<br>A 53919   | DRAWN BY<br>K.DANG | SCALE<br>N/A   | PART NUMBER<br>SPF-500 |

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.