



N Male Low PIM Connector Solder Attachment for SPF-500, SPO-500, SPP-500-LLPL

RF Connectors Technical Data Sheet



TC-500-NM-LP

Times Microwave Systems Connector Specification

Configuration

- N Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: SPO-500, SPP-500-LLPL, 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 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-500-NM-LP type N male connector offered by Pasternack with solder/solder attachment for Times' SPO-500, SPP-500-LLPL 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 excellent VSWR of 1.25:1. The Times type N male connector also has low passive intermodulation of -160 dBc.

Times Microwave's type N male connector TC-500-NM-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)			2,000	Vdc
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 Low PIM Connector Solder Attachment for SPF-500, SPO-500, SPP-500-LLPL TC-500-NM-LP](#)



N Male Low PIM Connector Solder Attachment for SPF-500, SPO-500, SPP-500-LLPL

RF Connectors Technical Data Sheet

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	1.24 in [31.5 mm]
Mating Cycles	500 Cycles
Mating Torque	6 to 10 in-lbs [0.68 to 1.13 Nm]
Cable Retention Force	179.85 lbs [81.58 kg]

Material Specifications

Description	Material	Plating
Contact	Brass	Silver 200 µin
Insulation	PTFE	
Body	Brass	Tri-Metal 80 µin
Coupling Nut	Brass	Tri-Metal 80 µin
Gasket	Silicone	

Environmental Specifications

Temperature

Operating Range	-40 to +125 deg C
Shock	MIL-STD 202G, Meth.213, Cond I
Vibration	MIL-STD 202G, Meth.204, Cond B
Thermal Shock	MIL-STD 202G, Meth.107, Cond B

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

Plotted and Other Data

Notes:

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N Male Low PIM Connector Solder Attachment for SPF-500, SPO-500, SPP-500-LLPL

RF Connectors Technical Data Sheet



TC-500-NM-LP

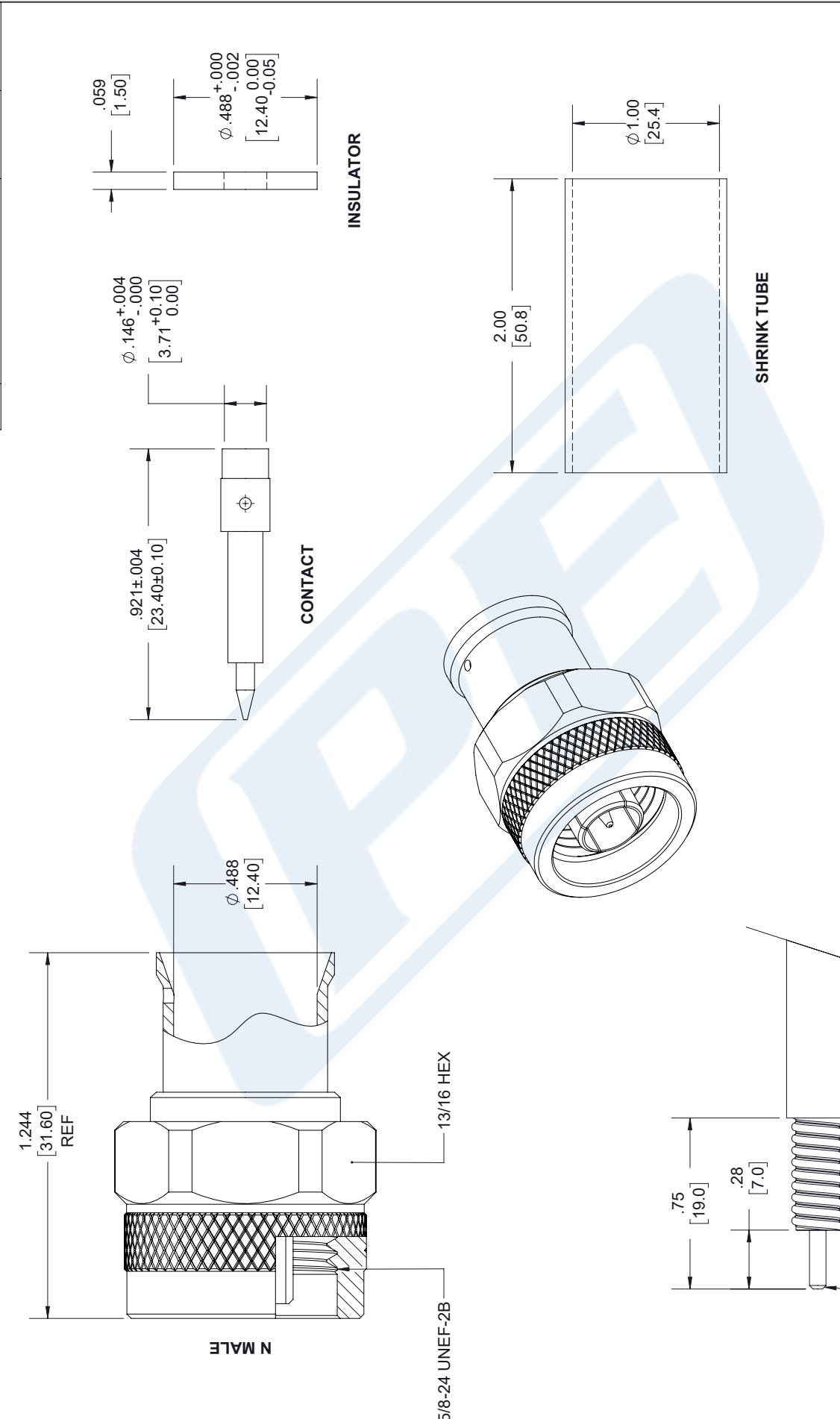
N Male Low PIM Connector Solder Attachment for SPF-500, SPO-500, SPP-500-LLPL from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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 SPF-500, SPO-500, SPP-500-LLPL TC-500-NM-LP](https://www.pasternack.com/n-male-spf-500-spo-500-spp-500-llpl-connector-tc-500-nm-lp-p.aspx)

URL: <https://www.pasternack.com/n-male-spf-500-spo-500-spp-500-llpl-connector-tc-500-nm-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
A	INITIAL RELEASE	6/2/2020



<p>THIRD-ANGLE PROJECTION</p> <p>THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION. ALL RIGHTS RESERVED.</p>	<p>PE PASTERNAK an INFINIT® brand</p> <p>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</p>	<p>SHEET 1 OF 1</p> <p>SCALE N/A</p>
	<p>ITEM NO. TC-500-NM-LP</p> <p>REV. A</p>	<p>SIZE A</p> <p>CAGE CODE 53919</p> <p>DRAWN BY K.DANG</p>

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

TOLERANCES:

.X = ± .2	[5.08]	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% / L / -0	

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

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

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7/16 DIN Female Connector Clamp/Solder
Attachment For 1/2 inch Helical

TECHNICAL DATA SHEET

PE44560

7/16 DIN Female Connector Clamp/Solder Attachment For 1/2 inch Helical

Configuration

Connector	7/16 DIN Female
Connector Specification	IEC60169-4
Connector Interface Type	1/2 inch Helical
Cable Attachment Method (Shield/Contact)	Clamp/Solder
Body Style	Straight

Electrical Specifications

Frequency Range, GHz	DC to 3
Impedance, Ohms	50
Maximum Return Loss, dB	28
Maximum Operating Voltage, Volts	2,700

Frequency 1

Frequency, GHz	DC to 2
Insertion Loss, dB	0.05
Power Handling, Watts	400

Mechanical Specifications

Temperature

Operating Range, deg C	-55 to +155
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Size

Length, in [mm]	2 [50.8]
Width/Dia., in [mm]	1.14 [28.96]
Weight, lbs [Kg]	4.1 [1.86]

Connector

Type	7/16 DIN Female
Contact Material and Plating	Beryllium Copper, Silver
Contact Plating Specification	5µ in. Minimum
Body Material and Plating	Brass, Tri-Metal
Body Plating Specification	2µ in. Minimum
Dielectric Type	PTFE

Compliance Certifications (visit www.Pasternack.com for current document)

RoHS Compliant	Yes
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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 Female Connector Clamp/Solder Attachment For 1/2 inch Helical PE44560](#)

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7/16 DIN Female Connector Clamp/Solder
Attachment For 1/2 inch Helical

TECHNICAL DATA SHEET

PE44560

Plotted and Other Data

Notes:

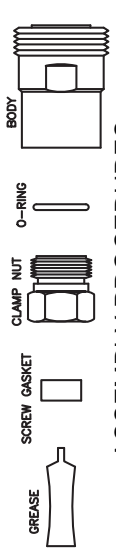
Values at 25 °C, sea level

7/16 DIN Female Connector Clamp/Solder Attachment For 1/2 inch Helical 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.

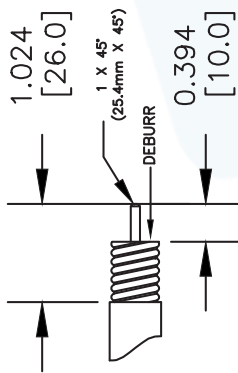
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [7/16 DIN Female Connector Clamp/Solder Attachment For 1/2 inch Helical PE44560](http://www.pasternack.com/7-16-female-standard-1-2-inch-helical-connector-pe44560-p.aspx)

URL: <http://www.pasternack.com/7-16-female-standard-1-2-inch-helical-connector-pe44560-p.aspx>

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

ASSEMBLY PROCEDURES



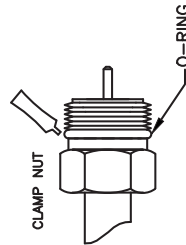
2. PUT THE SCREW GASKET ONTO CABLE, PAY ATTENTION TO THE CORRECT DIRECTION OF THE SCREW GASKET (ANGLE DIRECTION TOWARDS THE FRONT). WIPE THE GASKET WITH GREASE.



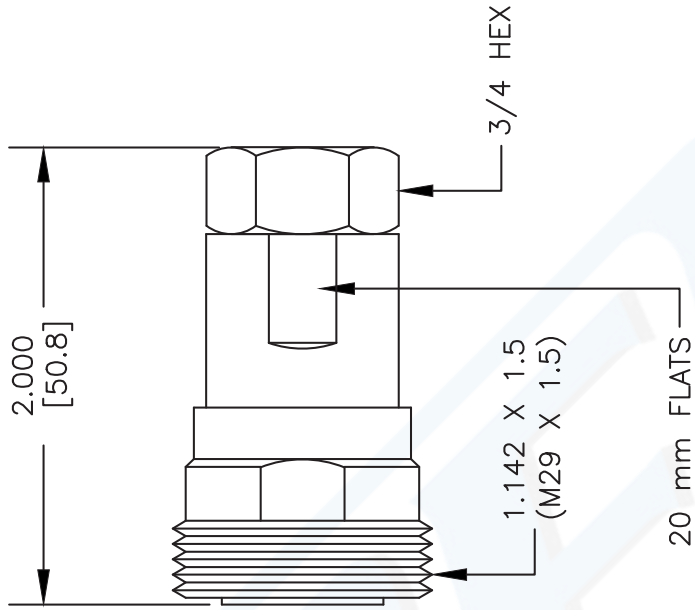
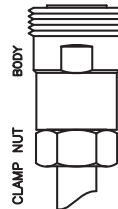
3. SCREW CLAMP NUT ONTO CABLE UNTIL EDGES OF NUT & OUTER CONDUCTOR ARE FLAT.



4. SLIDE O-RING OVER THREAD AND SEAT INTO PLACE. GREASE O-RING.



5. HOLD CLAMP NUT STEADY & SCREW BODY TIGHTLY ONTO CABLE.



DWG TITLE

PE44560

- 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].
 4. FITS MIL-C-17 AND EQUIVALENT CABLES.

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FSCM NO. 53919

CAD FILE 081808

SCALE N/A

SIZE A

147



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 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.

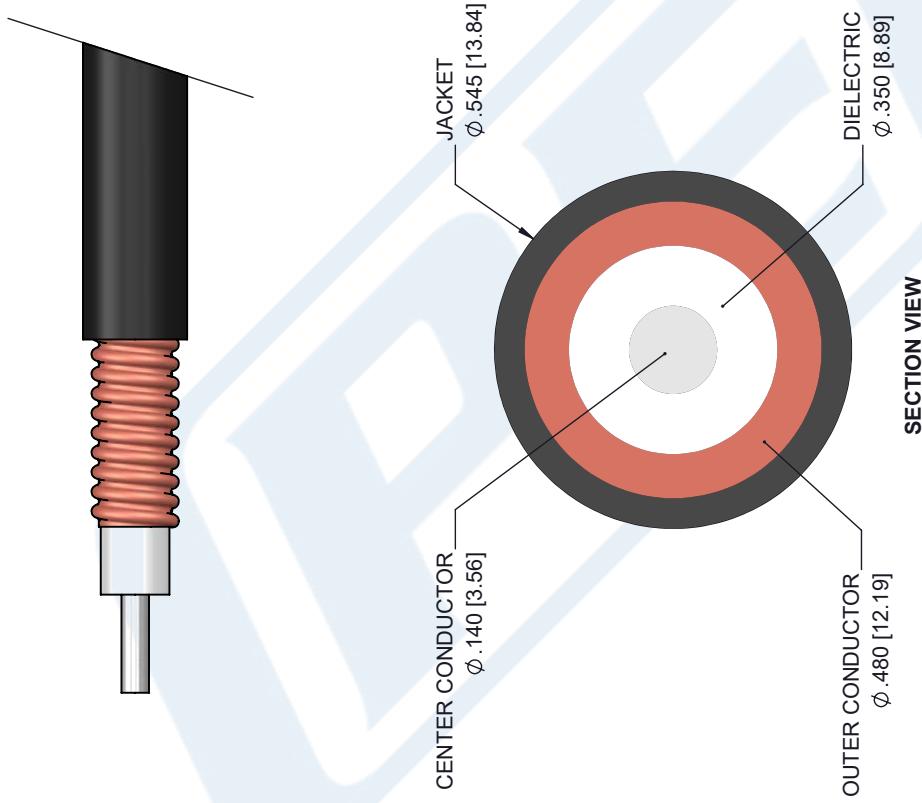
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URL: <https://www.pasternack.com/low-loss-corrugated-spf500-frpe-jacket-spf-500-p.aspx>

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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			
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 XX±.01 [.25] ±1/32 XXX±.005 [1.13] ANGLES ± 1° 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
SIZE A CAGE 53919 DRAWN BY K.DANG PART NUMBER SPF-500	REV A	

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