

## 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.

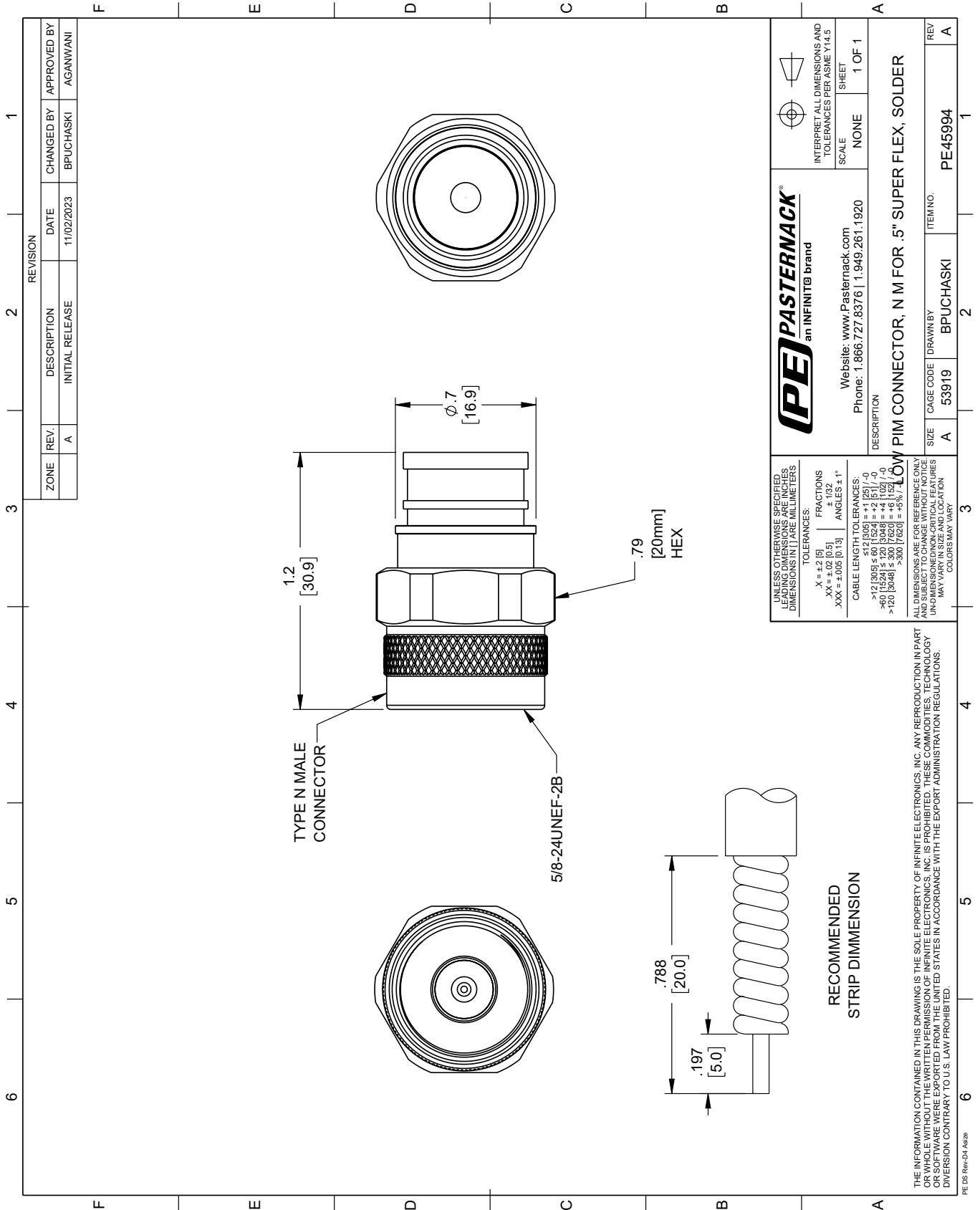
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [N Male Low PIM Connector Solder Attachment for 1/2" Helical, 1/2" Superflexible, SPP-500-LLPL, SPO-500, SPF-500 PE45994](#)

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

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REVISION		DATE	CHANGED BY	APPROVED BY
ZONE	REV.	INITIAL RELEASE		
	A	11/02/2023	BPUCHASKI	AGANWANI

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SCALE: NONE  
SHEET: 1 OF 1

INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

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

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

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

TOLERANCES:  
 .X = ±.2 [5]  
 .XX = ±.02 [0.5]  
 .XXX = ±.005 [0.13]

FRACTIONS: ± 1/32  
 ANGLES: ± 1°

CABLE LENGTH TOLERANCES:  
 < 12 [305] ≤ 60 [1524] = ±.1 [25] / -0  
 > 60 [1524] ≤ 120 [3048] = ±.4 [102] / -0  
 > 120 [3048] ≤ 300 [7620] = ±.8 [20] / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS IN [ ] ARE MILLIMETERS. COLORS MAY VARY.

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PE DS Rev-04 Add2

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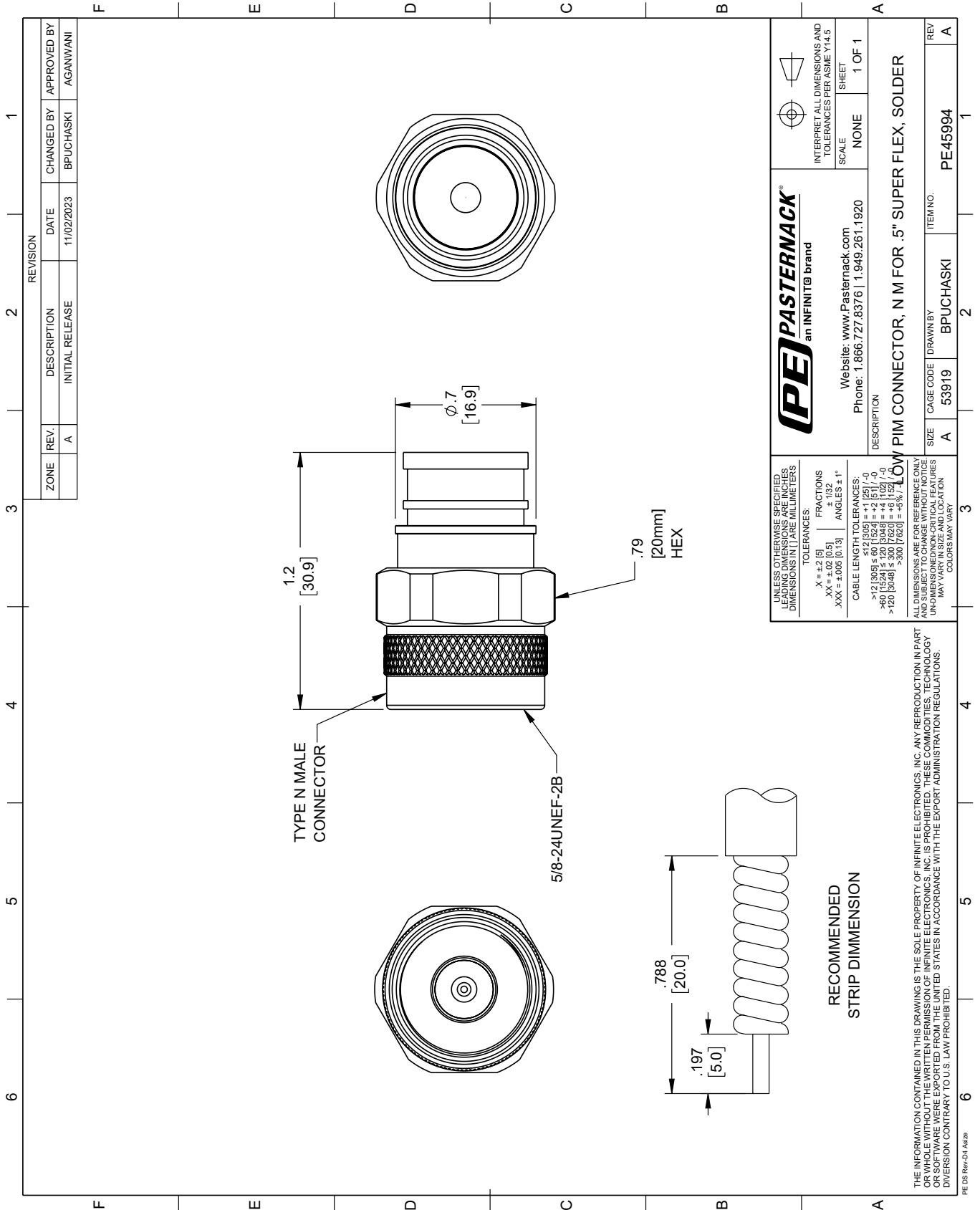
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DESCRIPTION: LOW PIM CONNECTOR, N M FOR .5" SUPER FLEX, SOLDER

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

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PE DS Rev-D4 Add2



## Low Loss 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket

### RF Cables Technical Data Sheet

PE-1/2SFHC

#### Configuration

- Low Loss Corrugated Cable
- 1 Shield(s)

#### Features

- Low Passive Intermodulation
- Solid copper outer conductor provides the highest possible RF shielding
- Superflexible helically corrugated copper outer conductor enables a small bending radius
- Excellent return loss performance
- Highly foamed dielectric provides low attenuation

#### Description

Our corrugated cables and Low PIM connector combinations result in cable assemblies with excellent Passive Intermodulation performance. Solid copper outer conductors provide the highest possible RF shielding. This Superflexible cable features excellent return loss performance. The highly foamed dielectric and optimized dimensions of these cables result in excellent low attenuation values. The Superflexible helically corrugated copper outer conductor allows for a small bending radius.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		10.2	GHz
Cutoff Frequency		13		GHz
Impedance		50		Ohms
Velocity of Propagation		82		%
Shielding Effectiveness	120			dB
Operating Voltage (AC)			1,000	Vrms
Dielectric Withstanding Voltage (AC)			2,500	Vrms
Inner Conductor DC Resistance			0.91	Ohms/1000ft
Outer Conductor DC Resistance			1.08	Ohms/1000ft
Nominal Capacitance		25.3 [83.01]		pF/ft [pF/m]
Nominal Inductance		0.059 [0.19]		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 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket PE-1/2SFHC](#)



## Low Loss 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket

### RF Cables Technical Data Sheet

PE-1/2SFHC

#### Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.1	0.45	0.9	1	1.8	GHz
Attenuation, Typ	1.01	2.22	3.22	3.41	4.72	dB/100ft
	3.31	7.28	10.56	11.19	15.49	dB/100m
Input Power (CW), Max	2,590	1,180	810	770	560	Watts

Description	F6	F7	F8	F9	F10	Units
Frequency	2	3	4	5	6	GHz
Attenuation, Typ	5.01	6.3	7.44	8.48	9.44	dB/100ft
	16.44	20.67	24.41	27.82	30.97	dB/100m
Input Power (CW), Max	530	420	350	31	280	Watts

#### Mechanical Specifications

Diameter	0.519 in [13.18 mm]
Weight	0.132 lbs/ft [0.2 Kg/m]
Number of Bends, Min	20
Min. Bend Radius (Installation)	0.6 in [15.24 mm]
Min. Bend Radius (Repeated)	1.18 in [29.97 mm]
Tensile Strength	79 lbs [35.83 kg]

#### Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Aluminum <sup>1</sup>	0.141 in 3.58 mm
Conductor Type	Solid	
Dielectric	PE (F)	0.378 in 9.6 mm
Outer Conductor	Helically Corrugated Copper Tube	0.468 in 11.89 mm
Jacket	PE, Black	0.519 in [13.18 mm]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Low Loss 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket PE-1/2SFHC](#)



## Low Loss 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket

### RF Cables Technical Data Sheet

PE-1/2SFHC

#### Environmental Specifications

##### Temperature

Operating Range

-55 to +85 deg C

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

#### Plotted and Other Data

Notes:

Low Loss 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket 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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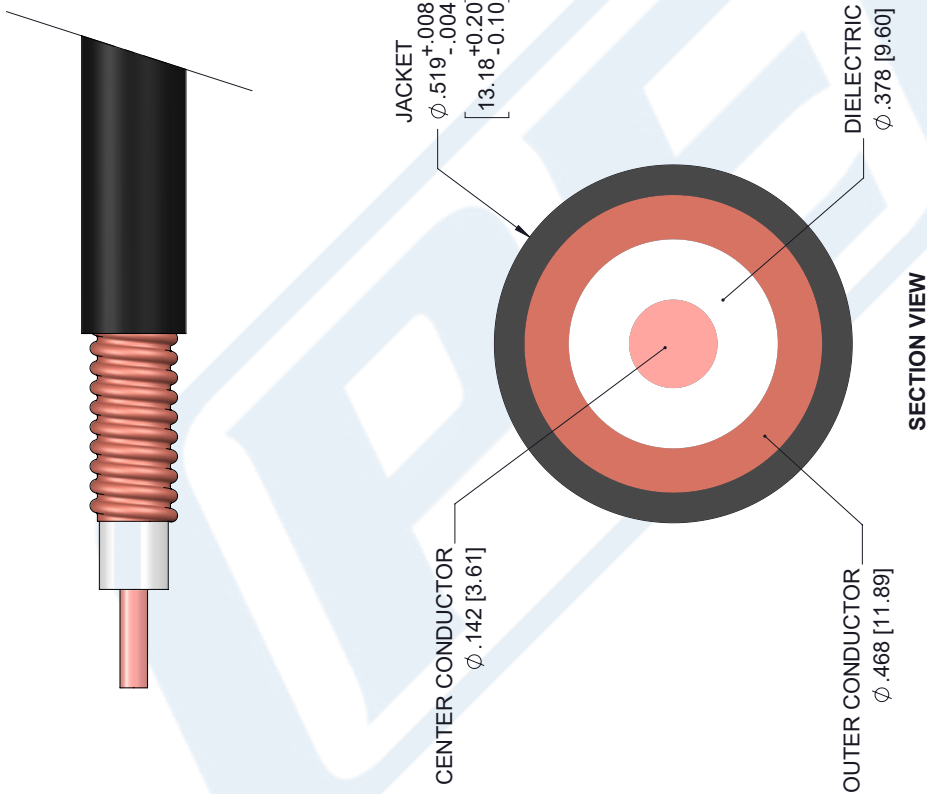
URL: <https://www.pasternack.com/50-ohm-low-loss-corrugated-1-2-superflexible-helical-coax-pe-1-2sfhc-p.aspx>

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# PE-1/2SFHC CAD Drawing

Low Loss 1/2 inch Superflexible Corrugated Coax Cable with Black PE Jacket

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1.1	PCR PE-1/2SFHC 20190708	07/16/19	S.ELLIS



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	
X±.2 [5.08]	FRACTIONS ±.132
.XX±.01 [.25]	ANGLES ± 1°
.XXX±.005 [.13]	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	
THIRD-ANGLE PROJECTION	

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an INFINITO 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 www.pasternack.com   e-mail: sales@pasternack.com		SHEET 1 OF 1	SCALE N/A
SIZE A	CAGE 53919	DRAWN BY K.DANG	PART NUMBER PE-1/2SFHC
			REV 1.1

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