



## 2.4mm Male Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

### RF Connectors Technical Data Sheet

PE45411

#### Configuration

- 2.4mm Male Connector
- 50 Ohms
- Straight Body Geometry
- Connector Interface Types: PE-047SR, PE-SR047AL, PE-SR047FL
- 5/16 inch Hex

#### Features

- Max. Operating Frequency 50 GHz
- Excellent VSWR of 1.16:1
- Gold over Nickel Plated Beryllium Copper Contact
- 50  $\mu$ m minimum contact plating

#### Applications

- General Purpose Test
- Custom Cable Assemblies

#### Description

Pasternack's PE45411 2.4mm male connector with solder attachment for PE-047SR, PE-SR047AL and PE-SR047FL is part of our full line of RF components available for same-day shipping. Our 2.4mm male connector operates up to a maximum frequency of 50 GHz and offers excellent VSWR of 1.16:1.

Our 2.4mm male connector PE45411 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		50	GHz
VSWR			1.16:1	
Insertion Loss			0.283	dB
Operating Voltage (AC)			170	Vrms
Dielectric Withstanding Voltage (AC)			500	Vrms
High Potential Voltage 5 to 7.5 MHz			325	Vrms
Corona Discharge at 70,000 ft			125	Vrms
Insulation Resistance	5,000			MOhms
RF Leakage	-90			dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2.4mm Male Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE45411](#)



2.4mm Male Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors  
Technical Data Sheet

PE45411

**Performance by Frequency**

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 18	18 to 26.5	26.5 to 40	40 to 50		GHz
VSWR, Max	1.1:1	1.12:1	1.14:1	1.16:1		

Electrical Specification Notes:  
Insertion loss: 0.04 x sqrt(fGHz) dB.

**Mechanical Specifications**

**Size**

Length 0.56 in [14.22 mm]  
Width/Dia. 0.312 in [7.92 mm]  
Height 0.35 in [8.89 mm]

Mating Cycles 500 Cycles  
Mating Torque 8 to 10 in-lbs [0.90 to 1.13 Nm]

**Material Specifications**

Description	Material	Plating
Contact	Beryllium Copper	Gold over Nickel 50 µin minimum
Insulation	PEI	
Body	Beryllium Copper	Gold over Nickel 50 µin minimum
Coupling Nut	Passivated Stainless Steel	ASTM-A582
Retaining Ring	Beryllium Copper	
Gasket	Silicone Rubber	

**Environmental Specifications**

**Temperature**

Operating Range -65 to +150 deg C  
Shock MIL-STD-202, Method 213, Condition I  
Vibration MIL-STD-202, Method 204, Condition D  
Thermal Shock MIL-STD-202, Method 107, Condition B  
Salt Spray MIL-STD-202, Method 101, Condition B, 5% salt solution

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2.4mm Male Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors  
Technical Data Sheet

PE45411

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

**Plotted and Other Data**

Notes:



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PE45411



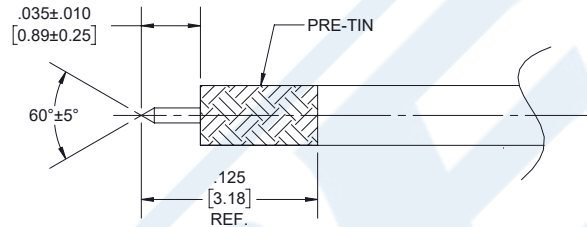
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RF Connectors  
Technical Data Sheet

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Assembly Instruction

Assembly Instructions

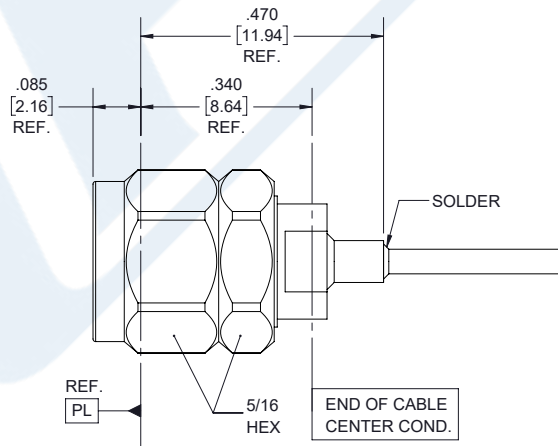


**STEP 1:**

- PRE-TIN CABLE OUTER JACKET OVER APPROX. LENGTH SHOWN.
- TRIM CABLE TO EXPOSE CENTER CONDUCTOR AS SHOWN.
- POINT CENTER CONDUCTOR AS INDICATED.

**STEP 2:**

- INSERT CABLE INTO CONNECTOR UNTIL CENTER CONDUCTOR PLUGS IN AND CABLE SEATS IN CONNECTOR BORE.
- SOLDER CABLE JACKET TO BODY WHERE SHOWN APPLYING HEAT TO EXTENDED BODY TAIL.



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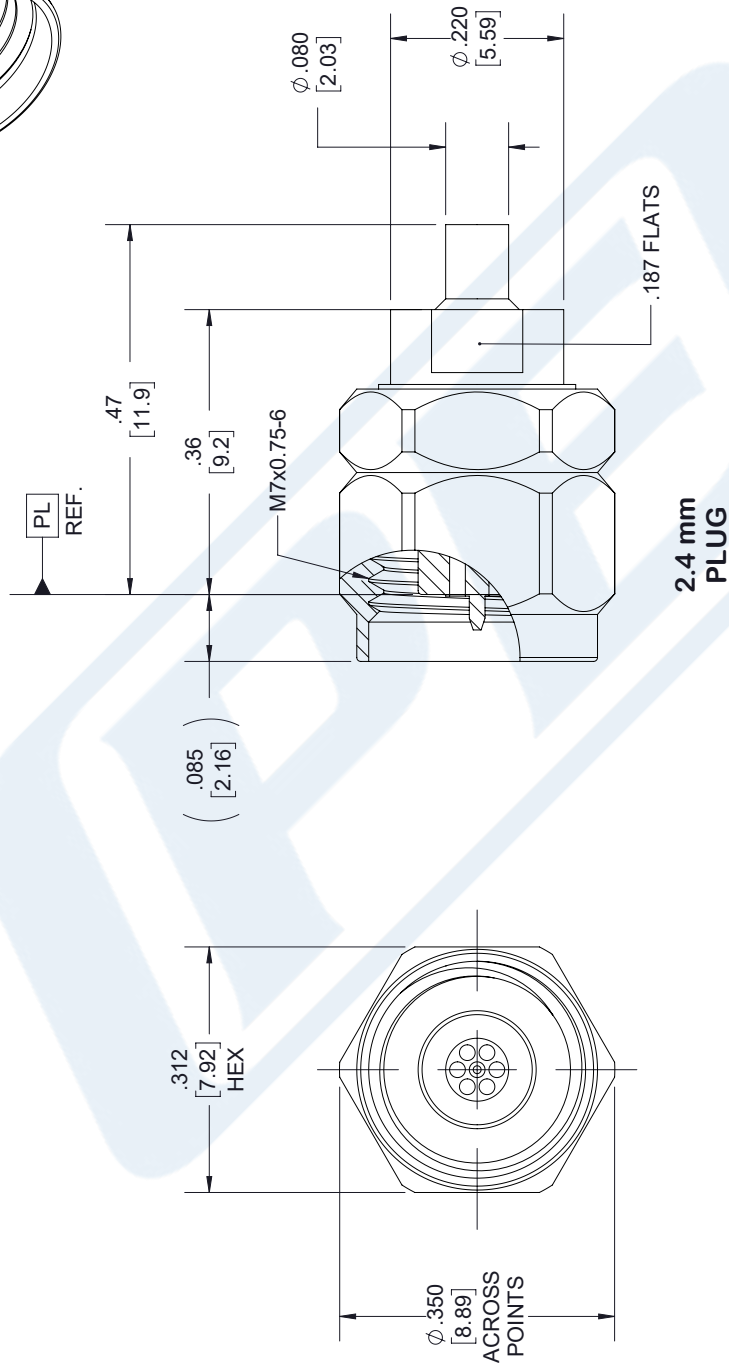
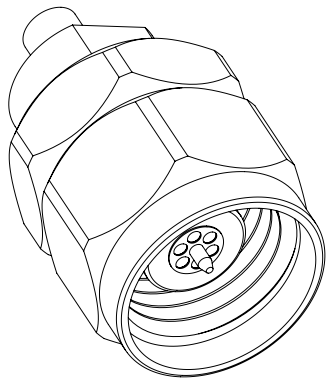
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# PE45411 CAD Drawing

2.4mm Male Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL



STANDARD TOLERANCES	
.X	$\pm 0.2$
.XX	$\pm 0.02$
.XXX	$\pm 0.005$

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

**PE PASTERNAK®**  
 THE ENGINEER'S RF SOURCE  
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**Phone:** (949) 261-1920 | **Fax:** (949) 261-7451  
**Website:** www.pasternack.com | **E-Mail:** sales@pasternack.com

DWG TITLE	PE45411
CAGE CODE	53919

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].			
CAD FILE	110217	SCALE	N/A
SIZE	A		
			7361



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RF Connectors  
Technical Data Sheet

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

**Plotted and Other Data**

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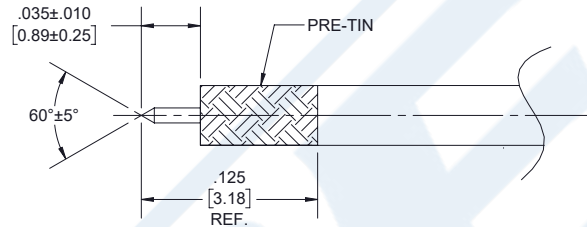
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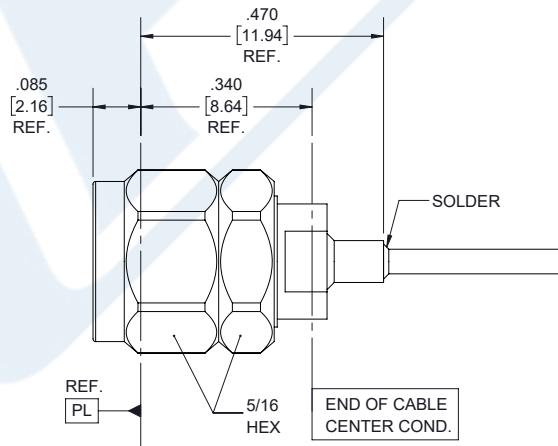


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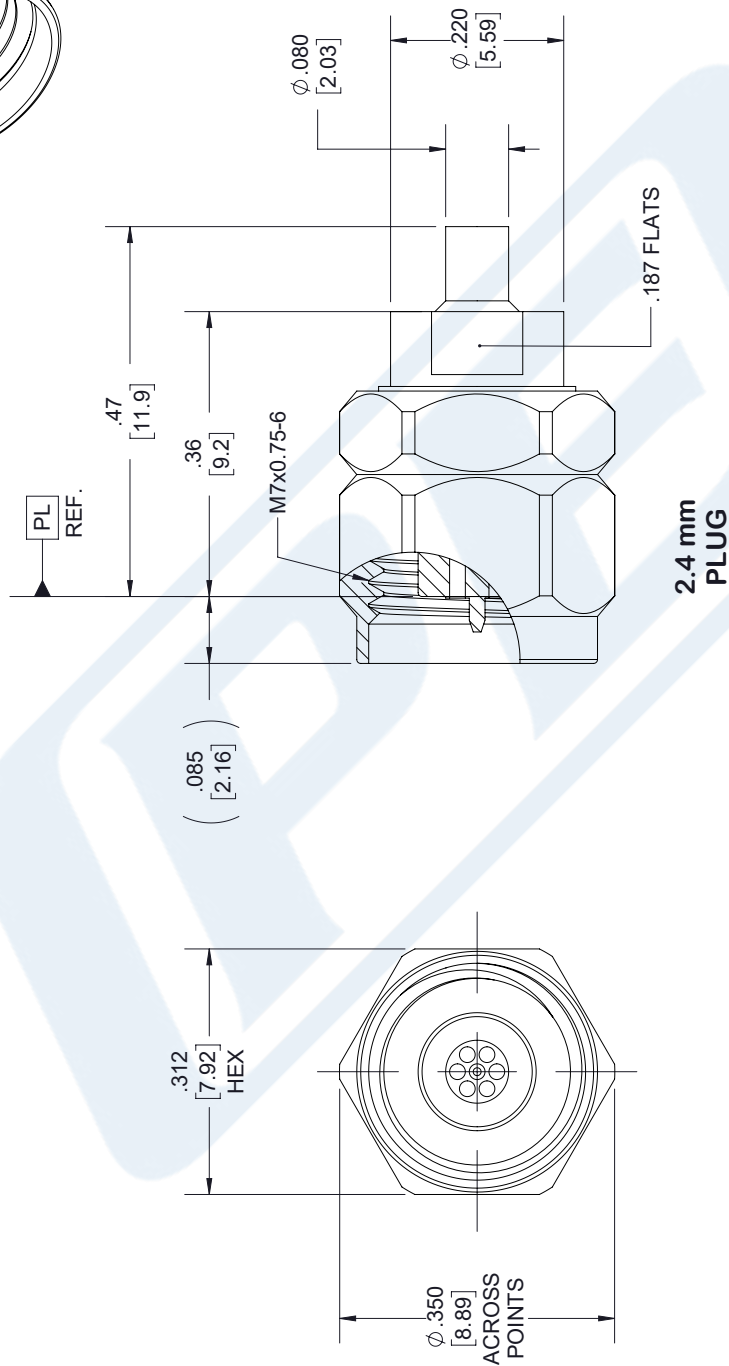
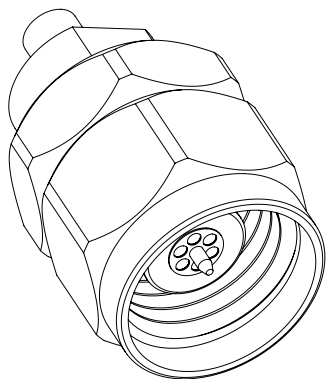
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# PE45411 CAD Drawing

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.02
.XXX	±0.005

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**Website:** www.pasternack.com | **E-Mail:** sales@pasternack.com

DWG TITLE  
**PE45411**

**CAGE CODE 53919**

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CAD FILE 110217

SCALE N/A

SIZE A

7361

# Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor

## RF Cables Technical Data Sheet

PE-SR047FL

### Configuration

- Formable Cable
- 1 Shield(s)

### Features

- Dimensionally and electrically the same as standard, solid outer conductor semi-rigid coax
- May be formed by hand and does not require special tools to bend
- May be formed more than once without damaging the outer conductor
- Tinned Copper Braid Outer Conductor
- Max Frequency 20 GHz

### Applications

- Test and Measurement
- Communication Systems
- Wireless Systems
- Medical Equipment
- RADAR
- Low Loss Applications

### Description

Formable semi-rigid coaxial cable is a hand formable version of standard semi-rigid that does not require complicated and costly preformed cable assemblies. Because the dimensions and electrical characteristics are so closely matched to semi-rigid coax, standard semi-rigid connectors can be used. Pasternack's PE-SR047FL is a formable .047 semi-rigid coax cable with tinned copper braid outer conductor, providing low loss and excellent RF shielding effectiveness. This semi-flexible cable has an FEP jacket to reduce the chance of shorting exposed contacts or circuit conductors. Pasternack's formable cable can be used as an alternative to semi-rigid coaxial cable in applications where flexibility is required without giving up high electrical performance level. PE-SR047FL datasheet specifications and outline drawing for this .047 semi-flexible hand formable cable are shown in the PDF below.

Pasternack carries a wide range of cables ready to ship same day to fit your needs. They are available in corrugated, flexible, formable or semi-rigid versions with different constructions of conductor materials, dielectric materials, shielding configurations and jacket materials. Our cables are designed to fit a wide range of performance criteria including attenuation, operating temperature, environmental factor, and power capability.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		20	GHz
Impedance		50		Ohms
Velocity of Propagation		69.5		%
Inner Conductor DC Resistance			207	Ohms/1000ft
Outer Conductor DC Resistance			8	Ohms/1000ft
Nominal Capacitance		32 [104.99]		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: [Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor PE-SR047FL](#)



## Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor

### RF Cables Technical Data Sheet

PE-SR047FL

#### Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.5	1	3	5	10	GHz
Attenuation, Typ	25	36	65	86	128	dB/100ft
	82.02	118.11	213.25	282.15	419.95	dB/100m

Description	F6	F7	F8	F9	F10	Units
Frequency	15	20				GHz
Attenuation, Typ	162	192				dB/100ft
	531.5	629.92				dB/100m

#### Mechanical Specifications

##### Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Steel, Silver1	0.011 in 0.28 mm
Conductor Type	Solid	
Dielectric	PTFE	0.034 in 0.86 mm
Outer Conductor	Tinned Copper Braid	0.047 in 1.19 mm

#### Environmental Specifications

##### Temperature

Operating Range -40 to +100 deg C

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## Formable 047 Semi-rigid Coax Cable with Tinned Copper Braid Outer Conductor

### RF Cables Technical Data Sheet

PE-SR047FL

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

#### Plotted and Other Data

Notes:

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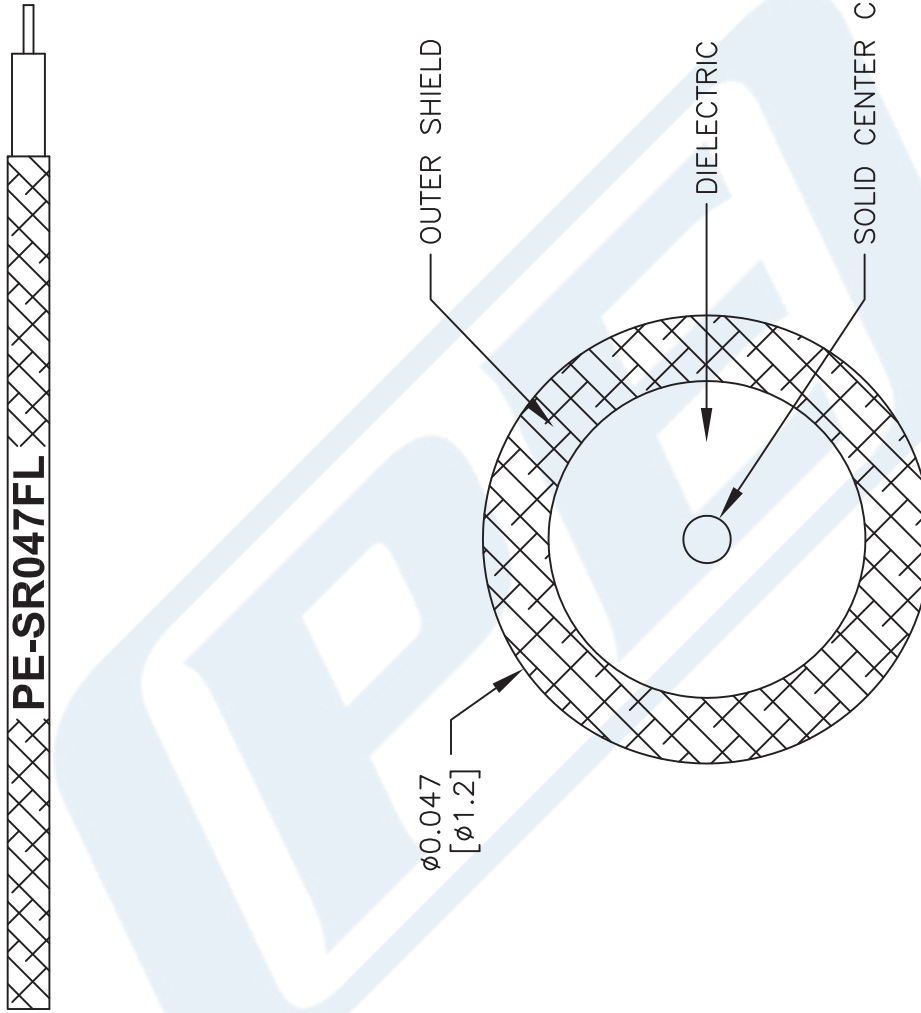
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# PE-SR047FL CAD Drawing

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DWG TITLE  
**PE-SR047FL**

FSCM NO. 53919

CAD FILE 111716

SCALE N/A

SIZE A

41742

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