



Mini SMP Male VITA 67 Connector Solder Attachment for PE-P047, PE-P047LL, PE-047SR, PE-SR047FL, PE-SR047AL

RF Connectors Technical Data Sheet

PE45539

Configuration

- Mini SMP Male Connector
- 50 Ohms
- Straight Body Geometry

- Connector Interface Types: PE-P047, PE-P047LL, PE-047SR, PE-SR047FL, PE-SR047AL
- VITA 67 Design

Features

- Max. Operating Frequency 40 GHz
- Good VSWR of 1.45:1
- Gold Plated Beryllium Copper Contact
- Contact plating according to ASTM B488
- Blind Mate Connector

- Coaxial interconnects on VPX platforms
- Standard MIL-STD-348 SMPM interface
- Rugged Stainless Steel construction
- Accepts 0.047" and 0.086" cable contacts for end-to-end solution

Applications

- General Purpose Test
- Custom Cable Assemblies

- Robust and Rugged high speed cabled solution

- VITA 67 Backplane
- High Density Applications

Description

Pasternack's PE45539 4-position block housing is part of our full line of VITA 67 Backplane solutions and is available for same-day shipping. Pasternack introduces 4 position (VITA 67.1) and 8 position (VITA 67.2) RF connector housings designed for 3U and 6U formats within the OpenVPX architecture. These blocks are machined from stainless steel for a rugged solution. The blocks are designed to accept both PE45535 (0.047" cable contact) & PE45536 (.086" cable contact) used in flexible or semi-rigid cables. These blocks are ideal for blind mating daughtercards to motherboards as the RF contacts provide +/- .010" radial misalignment tolerance and have excellent return loss up to 40 GHz.

The SMPM (Mini-SMP) blind mate connector is ideal for applications where direct visual or tactile access to the connection point is not possible, for example, when two circuit boards need to be mated. The block's right angle body geometry allows for easier connections in tight spaces.

Our SMPM (Mini-SMP) right angle block PE45539 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		40	GHz
VSWR			1.45:1	
Dielectric Withstanding Voltage (AC)		325		Vrms
Inner Conductor DC Resistance		6		mOhms
Outer Conductor DC Resistance		5		mOhms
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: [Mini SMP Male VITA 67 Connector Solder Attachment for PE-P047, PE-P047LL, PE-047SR, PE-SR047FL, PE-SR047AL PE45539](#)



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Mechanical Specifications

Size	
Length	0.42 in [10.67 mm]
Width/Dia.	0.19 in [4.83 mm]
Height	0.19 in [4.83 mm]
Weight	0.0016 lbs [0.73 g]
Mating Cycles	500 Cycles

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold ASTM B488
Insulation	PEI	
Body	Brass	Gold ASTM B488
Retaining Ring	Beryllium Copper	Nickel SAE-AMS-QQ-N-290

Environmental Specifications

Temperature	-55 to +125 deg C
Operating Range	1,000 megohms within 5 minutes after removal from
Humidity	humidity, tested per MIL-STD-202, Method 106
Shock	Sawtooth pulse of 100 g 6ms per MIL-STD-202, Method 213, Condition I
Vibration	MIL-STD-202, Method 214, Test Condition I, Curve D
Thermal Shock	MIL-STD-202, Method 107, Test Condition A

Compliance Certifications

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

Plotted and Other Data

Notes:

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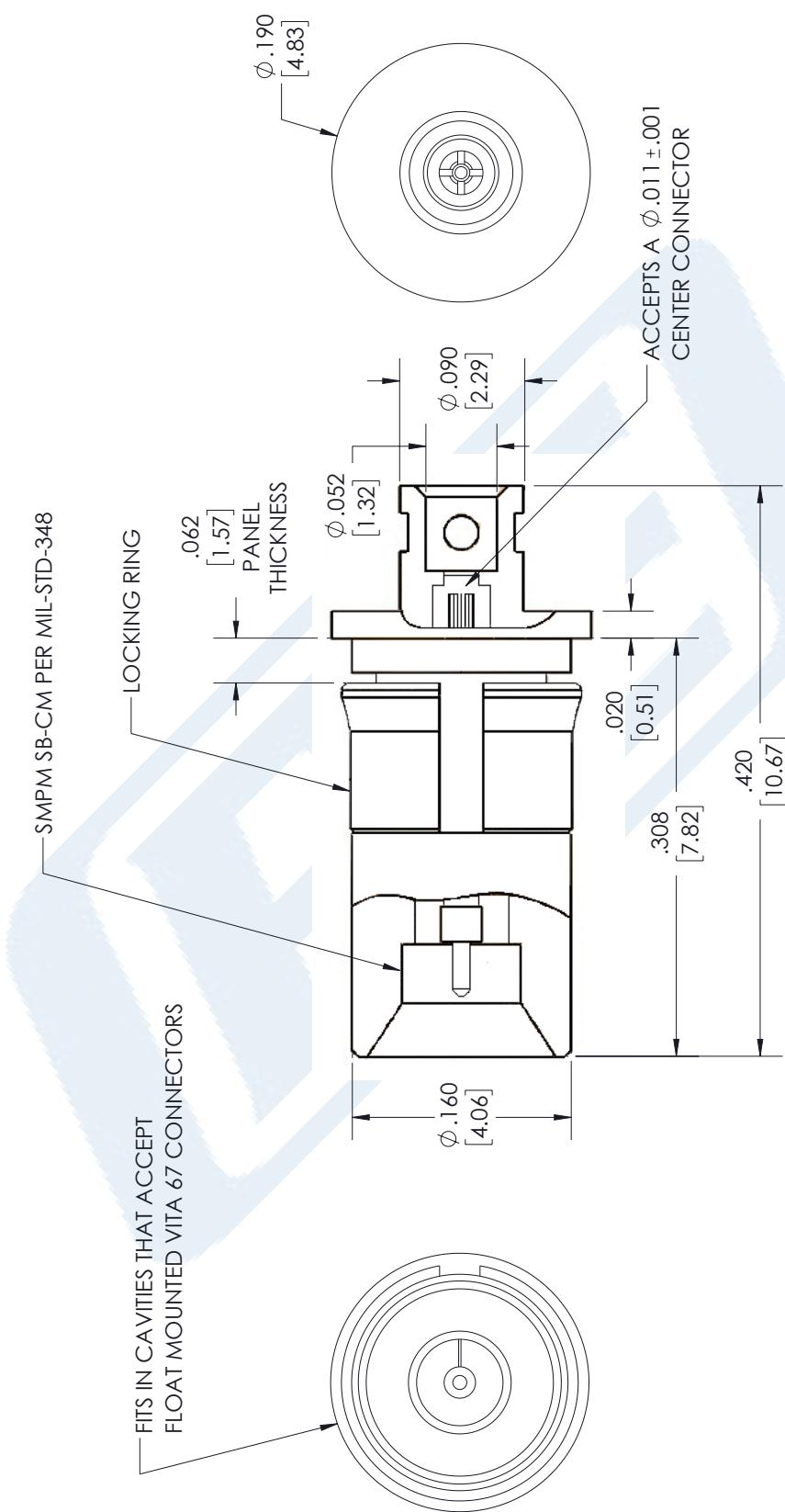
URL: <https://www.pasternack.com/mini-smp-male-pe-p047-pe-p047ll-pe-sr047fl-connector-pe45539-p.aspx>

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PE45539 CAD Drawing

Mini SMP Male VITA 67 Connector Solder Attachment for PE-P047, PE-P047LL, PE-047SR, PE-SR047FL, PE-SR047AL

REVISIONS				
REV.	DESCRIPTION	DATE	APPROVED	
A	INITIAL RELEASE	09/16/2022	AGANWANI	



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Website: www.pasterack.com	
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SHEET 1 OF 1	
SCALE N/A	REV A
ITEM NO. PE45539	
SIZE A	
CAGE CODE 53919	
DRAWN BY BPUCHASKI	

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

$X = \pm .2$	[.08]	FRACTIONS
$.XX = \pm .02$	[.51]	$\pm 1/32$
$XXX = \pm .005$	[.13]	ANGLES $\pm 1^\circ$
CABLE LENGTH (L) TOLERANCES:		
$L \leq 12$	[305]	$+1 [25] / -0$
$12 [305] < L \leq 60 [1524]$	$+2 [51] / -0$	
$60 [1524] < L \leq 120 [3048]$	$+4 [102] / -0$	
$120 [3048] < L \leq 300 [7620]$	$+6 [152] / -0$	
$300 [7620] < L = 450L / -0$		

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Vibration	MIL-STD-202, Method 214, Test Condition I, Curve D
Thermal Shock	MIL-STD-202, Method 107, Test Condition A

Compliance Certifications

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

Plotted and Other Data

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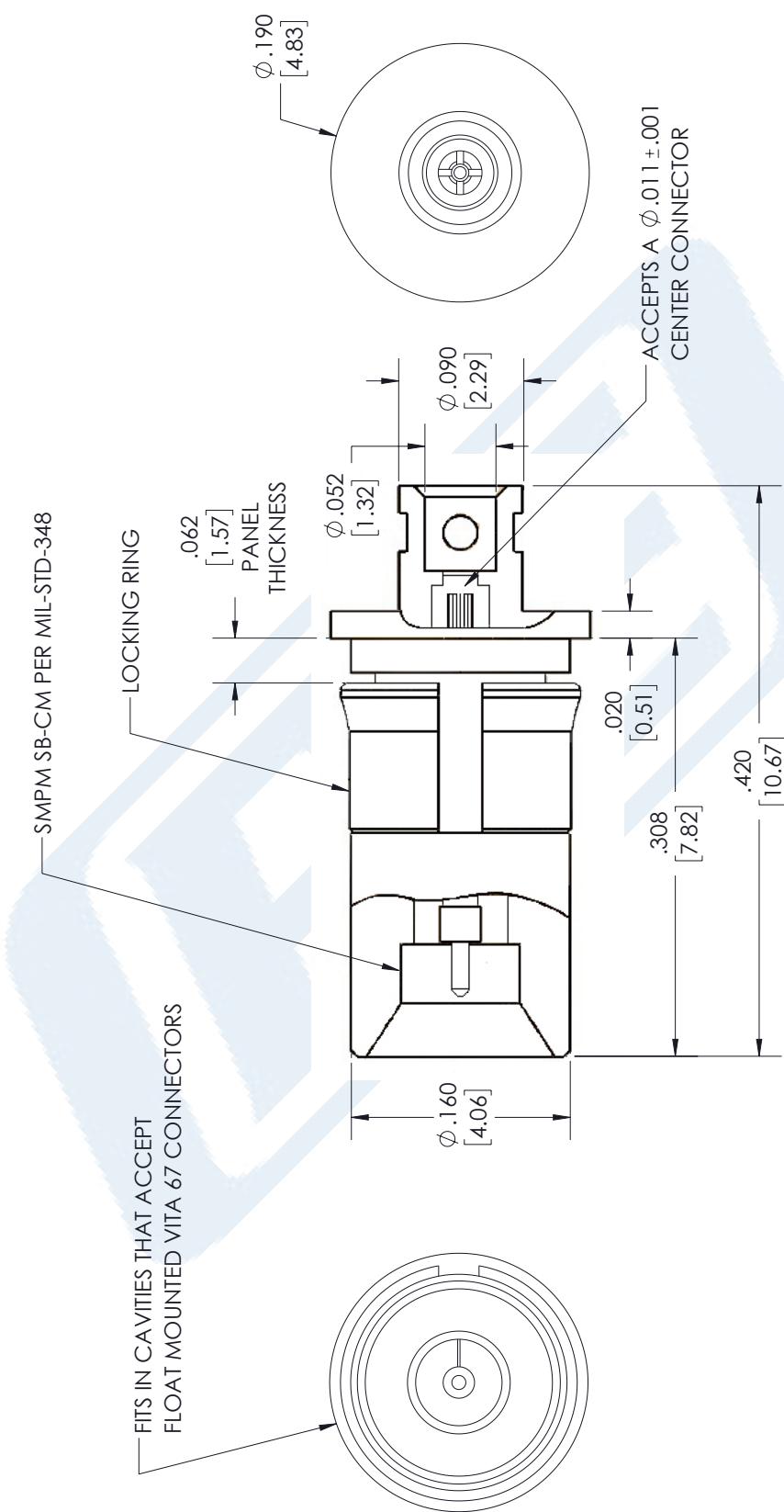
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SHEET 1 OF 1	SCALE N/A
SIZE A	ITEM NO. PE45539
REV A	

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS
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$120 [3048] < L \leq 300 [7620]$	$+6 [152] / -0$	
$300 [7620] < L$	$= 45\%L / -0$	

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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 82.02	36 118.11	65 213.25	86 282.15	128 419.95	dB/100ft dB/100m

Description	F6	F7	F8	F9	F10	Units
Frequency	15	20				GHz
Attenuation, Typ	162 531.5	192 629.92				dB/100ft 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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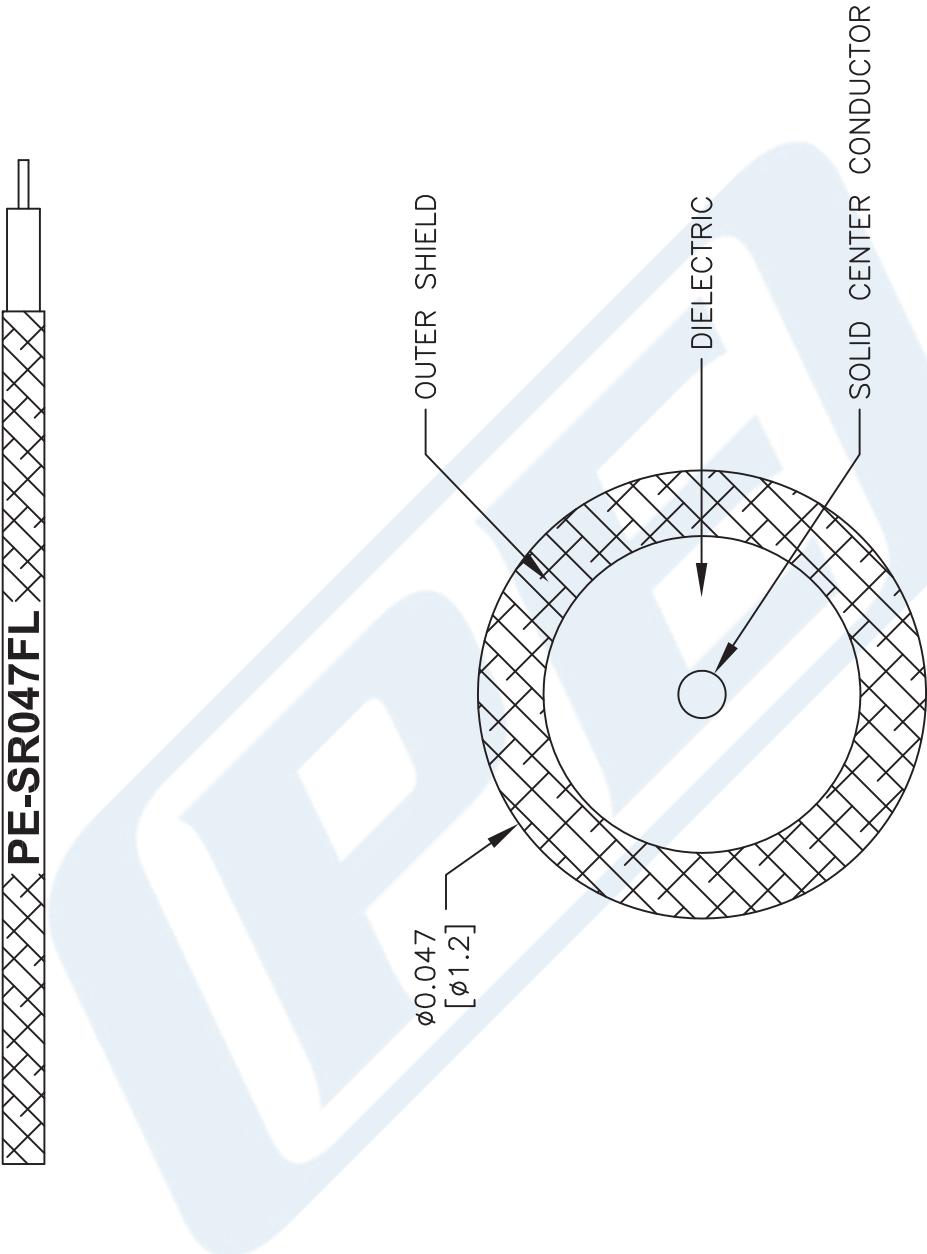
URL: <https://www.pasternack.com/formable-0.047-semirigid-replacement-50-ohm-coax-cable-tinned-braid-pe-sr047fl-p.aspx>

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PE-SR047FL CAD Drawing

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

PE-SR047FL



PASTERNACK
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

DWG TITLE	PE-SR047FL
FSCM NO. 53919	CAD FILE 111716

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].
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