



## Mini SMP Male VITA 67 Connector Solder Attachment for PE-P086, PE-P086HF, PE-P086LL, PE-P086FLX

### RF Connectors Technical Data Sheet

**PE45540**

#### Configuration

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

- Connector Interface Types: PE-P086, PE-P086HF, PE-P086LL, PE-P086FLX
- 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 PE45540 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 PE45540 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-P086, PE-P086HF, PE-P086LL, PE-P086FLX PE45540](#)



Mini SMP Male VITA 67 Connector Solder Attachment  
for PE-P086, PE-P086HF, PE-P086LL, PE-P086FLX

## RF Connectors Technical Data Sheet

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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	Teflon	
Body	Beryllium Copper	Gold ASTM B488
Retaining Ring	Beryllium Copper	Nickel SAE-AMS-QQ-N-290

### Environmental Specifications

#### Temperature

Operating Range	-55 to +125 deg C
Humidity	1,000 megohms within 5 minutes after removal from 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:

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-P086, PE-P086HF, PE-P086LL, PE-P086FLX PE45540](#)



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**PE45540**

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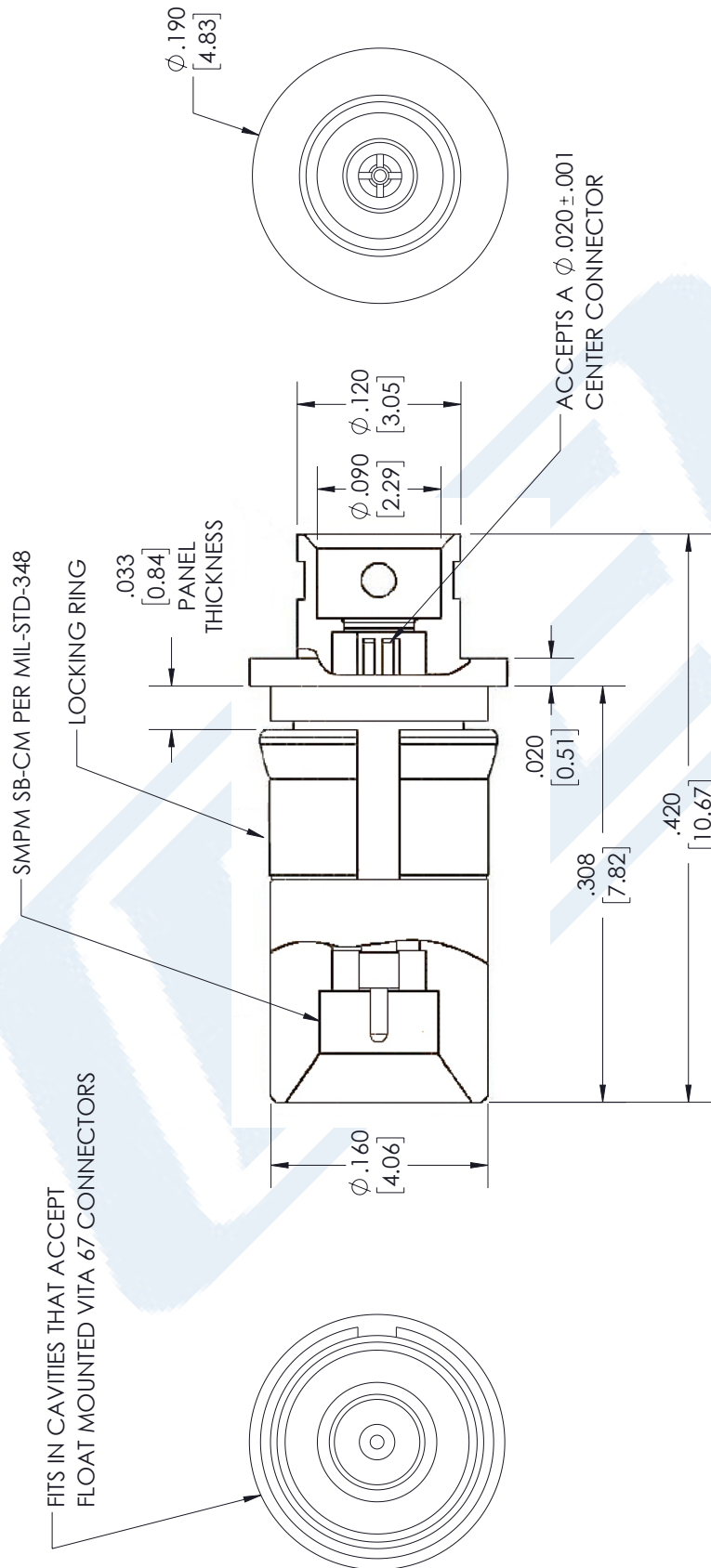
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# PE45540 CAD Drawing

Mini SMP Male VITA 67 Connector Solder Attachment for PE-  
P086, PE-P086HF, PE-P086LL, PE-P086FLX

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



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

TOLERANCES:

.X = ± .2 [5.08] FRACTIONS  
.XX = ± .02 [.51] ± 1/32  
.XXX = ± .005 [.13] ANGLES ± 1°

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.

THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

REV A

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Website: www.pasternack.com  
E-mail: sales@pasternack.com

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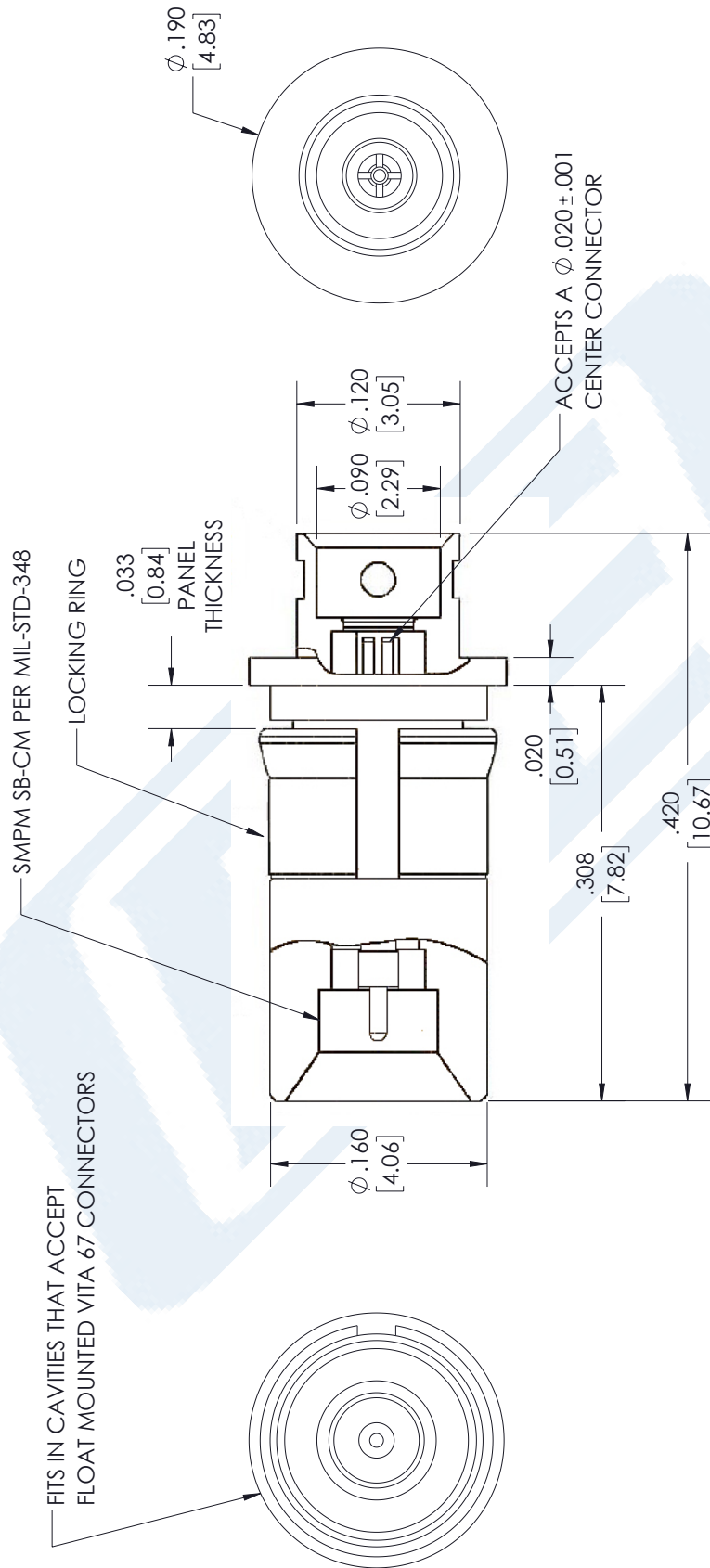
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SHEET 1 OF 1

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**PE PASTERNAK**  
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## Flexible PE-P086HF Coax Cable Double Shielded with Blue FEP Jacket

### RF Cables Technical Data Sheet

### PE-P086HF

#### Configuration

- Flexible Cable
- 2 Shield(s)

#### Description

Pasternack's PE-P086HF is a flexible, high frequency coaxial cable that provides similar loss characteristics to semi-rigid cable and low VSWR of 1.3:1 maximum up to 40 GHz. The low loss coax cable features silver-plated conductors and dual shields to maintain a shielding effectiveness of 110 dB. The size of the conductors for this low VSWR coax was specifically chosen to allow termination with standard connectors designed for M17/133-RG405 and other M17/133 cables. The outer shield is coated with a tough, chemical and heat resistant jacket. This PE-P086HF flexible low loss coaxial cable is a great choice for short length, high frequency system hook-up or jumper cable applications. The Pasternack coax cable can also be used as a replacement option for bent semi-rigid cable assemblies when length and routing are considered.

#### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50 $\pm$ 2		Ohms
Velocity of Propagation		70		%
Nominal Capacitance		29.4 [96.46]		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: [Flexible PE-P086HF Coax Cable Double Shielded with Blue FEP Jacket PE-P086HF](#)

## Flexible PE-P086HF Coax Cable Double Shielded with Blue FEP Jacket

### RF Cables Technical Data Sheet

### PE-P086HF

#### Performance by Frequency Band

Description	F1	F2	F3	F4	F5	Units
Frequency	0.4	1	2	2.4	3	GHz
Attenuation, Max	13.1	21.1	30.5	33.7	38	dB/100ft
	42.98	69.23	100.07	110.56	124.67	dB/100m
Attenuation, Typ	11.9	19.2	27.7	30.6	34.5	dB/100ft
	39.04	62.99	90.88	100.39	113.19	dB/100m

Description	F6	F7	F8	F9	F10	Units
Frequency	5	10	18	40		GHz
Attenuation, Max	50.3	74.3	104.6	170.3		dB/100ft
	165.03	243.77	343.18	558.73		dB/100m
Attenuation, Typ	45.7	67.5	95.1	154.8		dB/100ft
	149.93	221.46	312.01	507.87		dB/100m

#### Mechanical Specifications

Diameter	0.104 in [2.64 mm]
Weight	0.013 lbs/ft [0.02 Kg/m]
Min. Bend Radius (Installation)	0.52 in [13.21 mm]

#### Construction Specifications

Description	Material and Plating	Diameter
Inner Conductor	Copper Clad Steel, Silver, 1 Strands	0.02 in [0.51 mm]
Conductor Type	Solid	
Dielectric	PTFE	0.064 in [1.63 mm]
First Shield	Silver Plated Copper Tape	
Second Shield	Silver Plated Copper Braid	

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Flexible PE-P086HF Coax Cable Double Shielded with Blue FEP Jacket PE-P086HF](#)

Flexible PE-P086HF Coax Cable Double  
Shielded with Blue FEP Jacket

**RF Cables Technical Data Sheet**

**PE-P086HF**

Jacket	FEP, Blue	0.104 in [2.64 mm]
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**Environmental Specifications**

**Temperature**

Operating Range -55 to +200 deg C

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

**Plotted and Other Data**

**Notes:**

Flexible PE-P086HF Coax Cable Double Shielded with Blue FEP 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.

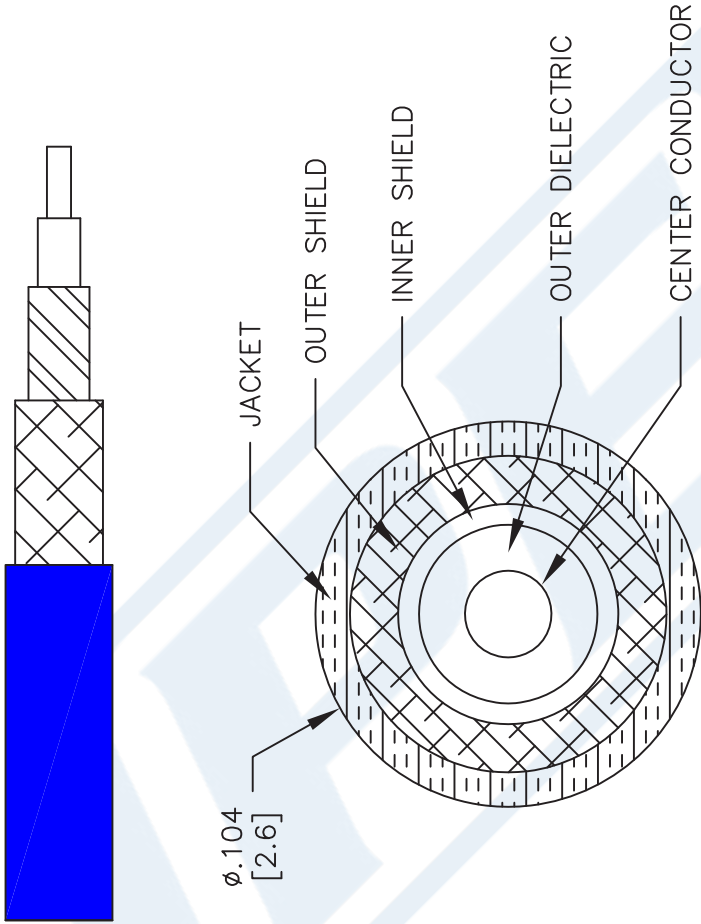
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URL: <https://www.pasternack.com/50-ohm-flexible-invalid-alias-fep-jacket-silver-plated-copper-tape-over-silver-plated-copper-braid-outer-conductor-double-shielded-blue-pe-p086hf-p.aspx>

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PE-P086HF CAD Drawing

Flexible PE-P086HF Coax Cable Double Shielded with Blue FEP Jacket



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].

DWG TITLE  
**PE-P086HF**

CAGE CODE 53919

CAD FILE 041317

SCALE N/A

SIZE A

2233

**PE PASTERNAK**  
THE ENGINEER'S RF SOURCE

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Website: [www.pasternack.com](http://www.pasternack.com) | E-Mail: [sales@pasternack.com](mailto:sales@pasternack.com)