



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](#)



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

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:

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](#)



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

Mini SMP Male VITA 67 Connector Solder Attachment for PE-P047, PE-P047LL, PE-047SR, PE-SR047FL, PE-SR047AL 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: [Mini SMP Male VITA 67 Connector Solder Attachment for PE-P047, PE-P047LL, PE-047SR, PE-SR047FL, PE-SR047AL PE45539](#)

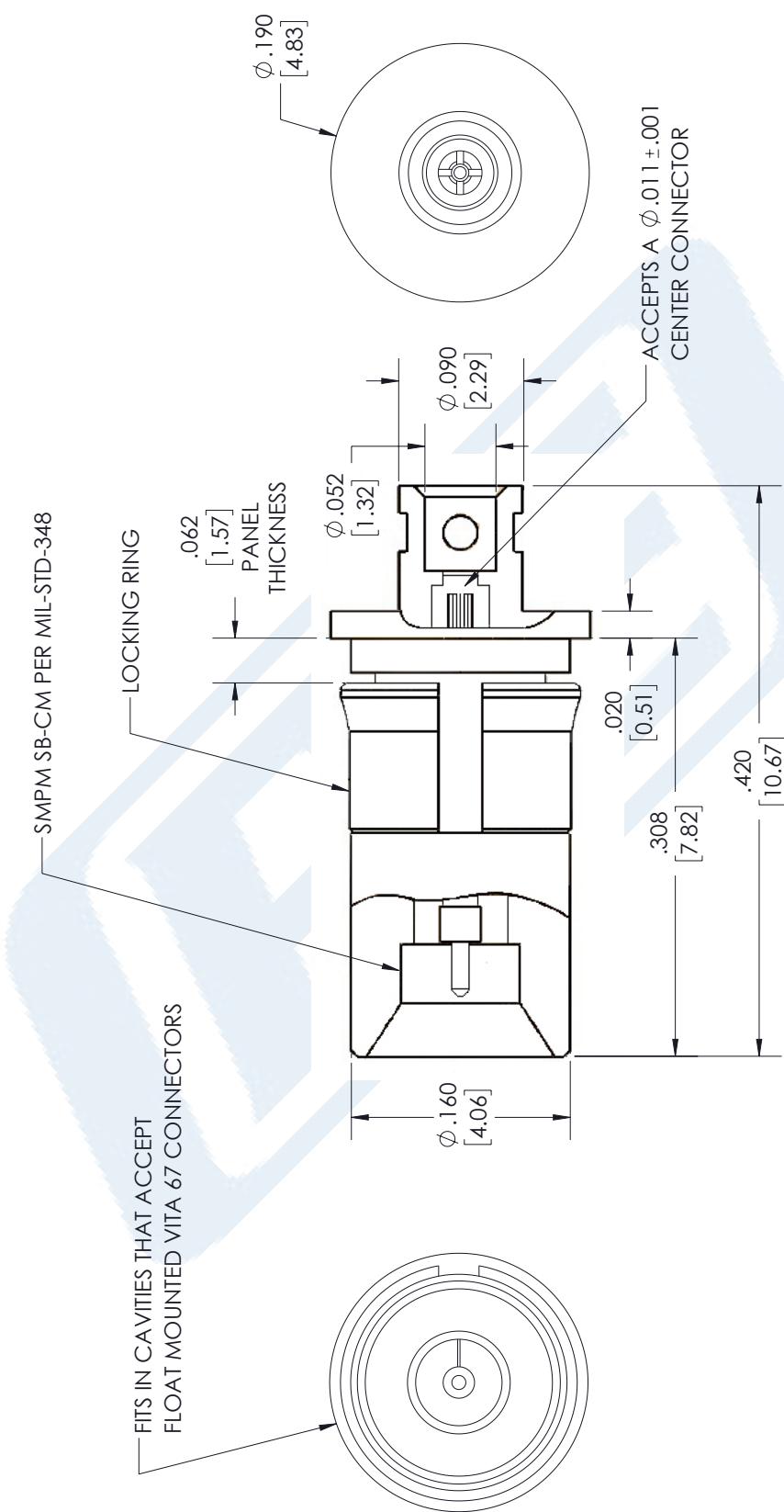
URL: <https://www.pasternack.com/mini-smp-male-pe-p047-pe-p047ll-pe-sr047fl-connector-pe45539-p.aspx>

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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	



THIRD ANGLE PROJECTION	
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SHEET 1 OF 1	
SCALE N/A	REV A
ITEM NO. PE45539	SIZE A
DRAWN BY BPUCHASKI	CAGE CODE 53919

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

FRACTIONS
 $X = \pm .2$ [5.08] $\frac{1}{32}$
 $XX = \pm .02$ [.51] $\pm 1/32$
 $XXX = \pm .005$ [.13] ANGLES $\pm 1^\circ$
 CABLE LENGTH (L) TOLERANCES:
 $L \leq 12$ [305] ± 1 [25] $L \leq 12$ [305] ± 1 [25] $\pm 1/32$
 $12 [305] < L \leq 60$ [524] ± 2 [51] $\pm 1/32$ $12 [305] < L \leq 60$ [524] ± 4 [102] $\pm 1/32$
 $60 [1524] < L \leq 120$ [3048] ± 4 [102] $\pm 1/32$ $60 [1524] < L \leq 120$ [3048] ± 6 [152] $\pm 1/32$
 $120 [3048] < L \leq 300$ [7620] ± 6 [152] $\pm 1/32$ $300 [7620] < L = 456$ [L] $\pm 1/32$
 ALL DIMENSIONS SHOWN
 ARE FOR REFERENCE ONLY.

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Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE44491

Configuration

- Mini SMP Female Connector
- MIL-STD-348A
- 50 Ohms

- Straight Body Geometry
- PE-047SR, PE-SR047AL, PE-SR047FL Interface Type
- Solder Attachment

Features

- Max. Operating Frequency 65 GHz
- Good VSWR of 1.68:1
- Gold Plated Beryllium Copper Contact
- Blind Mate Connector

Applications

- General Purpose Test
- Custom Cable Assemblies

Description

Pasternack's PE44491 Mini SMP female 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 Mini SMP female connector operates up to a maximum frequency of 65 GHz and offers good VSWR of 1.68:1. The Pasternack 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.

Our Mini SMP female connector PE44491 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		65	GHz
VSWR			1.68:1	
Operating Voltage (AC)			325	Vrms
Inner Conductor DC Resistance			6	mOhms
Outer Conductor DC Resistance			2	mOhms
Insulation Resistance	5,000			MOhms

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 18	18 to 40	40 to 65			GHz
VSWR, Max	1.11:1	1.33:1	1.68:1			

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE44491](#)



Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE44491

Electrical Specification Notes:

Insertion loss = $0.04 \times \sqrt{f\text{GHz}}$ dB max up to 26.5 GHz.

Mechanical Specifications

Size

Length
Width/Dia.
Weight

0.26 in [6.6 mm]
0.13 in [3.30 mm]
0.006 lbs [2.72 g]

Material Specifications

Description	Material	Plating
Contact	Beryllium Copper	Gold
Insulation	PTFE	
Body	Beryllium Copper	Gold

Mechanical Specification Notes:

Mating cycles: 500 (smooth bore), 100 (full detent) minimum.

Environmental Specifications

Temperature

Operating Range
Humidity
Shock
Vibration
Thermal Shock

-55 to +155 deg C
MIL-STD-202, Method 106
MIL-STD-202, Method 213, Condition A
MIL-STD-202, Method 204, Condition A
MIL-STD-202, Method 107, Condition B

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE44491](#)



Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

RF Connectors Technical Data Sheet

PE44491

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

Plotted and Other Data

Notes:

Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

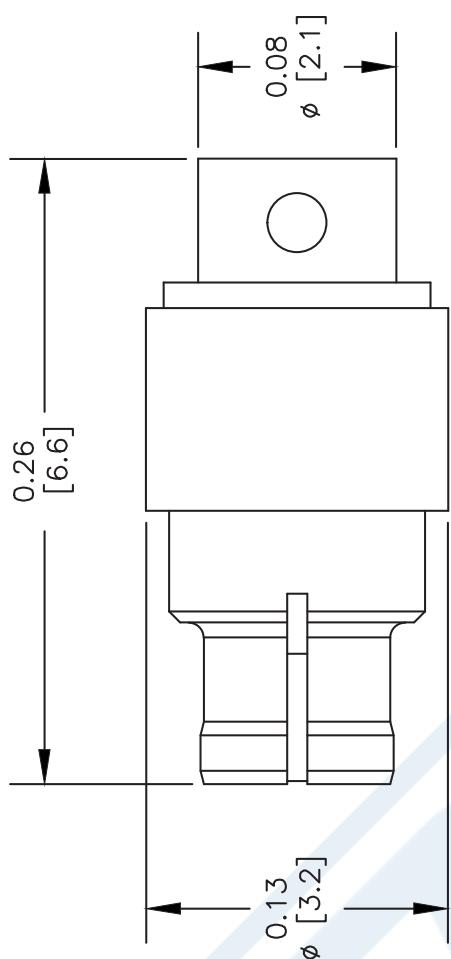
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL PE44491](#)

URL: <https://www.pasternack.com/mini-smp-female-standard-pe-047sr-pe-sr047al-pe-sr047fl-connector-pe44491-p.aspx>

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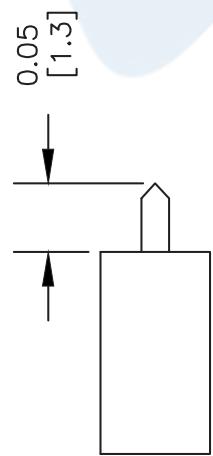
PE44491 CAD Drawing

Mini SMP Female Connector Solder Attachment for PE-047SR, PE-SR047AL, PE-SR047FL

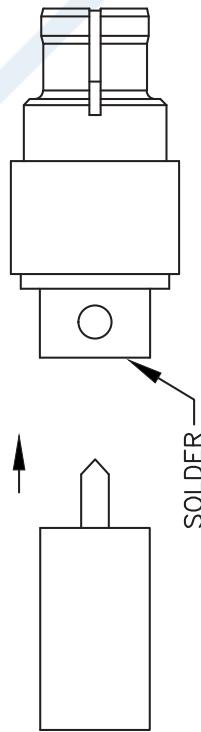


ASSEMBLY PROCEDURES

1. STRIP CABLE AS SHOWN. DO NOT NICK CENTER CONDUCTOR.



2. INSERT CABLE AND CONTACT INTO CONNECTOR BODY UNTIL FULLY ENGAGED. SOLDER BODY TO CABLE.



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DWG TITLE

PE44491

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].

REV. A FSCM NO. 53919 CAD FILE 020212 SCALE N/A SIZE A 2233

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

TECHNICAL DATA SHEET

PE-SR047AL

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

Configuration

Inner Conductor Material and Plating	Copper Clad Steel, Silver
Dielectric Type	PTFE
Shield Materials	Tinned Aluminum

Electrical Specifications

Impedance, Ohms	50
Velocity of Propagation, %	69.5
Maximum Operating Frequency, GHz	20
RF Shielding, dB	90
Maximum Operating Voltage, Volts	1,000

Electrical Specifications by Frequency

Frequency 1

Frequency, MHz	1000
Attenuation, dB/100ft [dB/100m]	41 [134.51]
Power Handling, Watts	32

Frequency 2

Frequency, GHz	10
Attenuation, dB/100ft [dB/100m]	130 [426.51]
Power Handling, Watts	9

Frequency 3

Frequency, GHz	20
Attenuation, dB/100ft [dB/100m]	190 [623.36]
Power Handling, Watts	6.5

Mechanical Specifications

Temperature

Operating Range, deg C	-55 to +100
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Inner Conductor

Number of Strands	1
Material	Copper Clad Steel
Plating	Silver
Diameter, in [mm]	0.011 [0.28]

Dielectric:

Type	PTFE
Diameter, in [mm]	0.037 [0.94]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor PE-SR047AL](#)

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047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

TECHNICAL DATA SHEET

PE-SR047AL

Shield:

Number of
Material 1

1
Tinned Aluminum

Jacket:

Diameter, in [mm]

0.047 [1.19]

One Time Minimum Bend Radius, in [mm]

0.05 [1.27]

Weight, lbs/ft [Kg/m]

0.002 [0]

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

Plotted and Other Data

Notes:

Values at 25 °C, sea level

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor 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: [047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor PE-SR047AL](#)

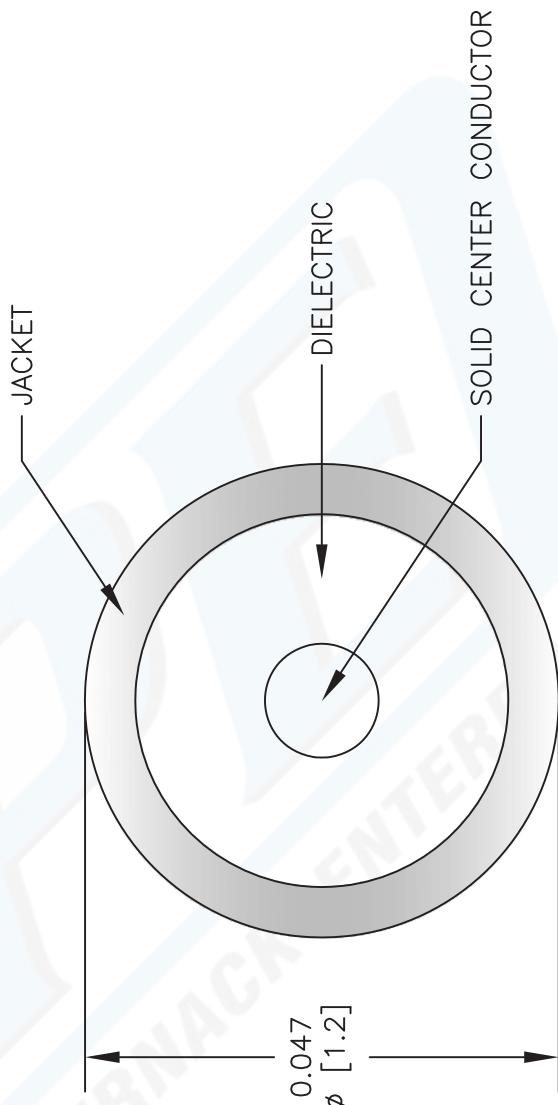
URL: <http://www.pasternack.com/semirigid-0.047-50-ohm-coax-cable-tinned-aluminum-pe-sr047al-p.aspx>

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PE-SR047AL CAD Drawing

047 Semi-rigid Coax Cable with Tinned Aluminum Outer Conductor

PE-SR047AL



PE-SR047AL

DWG TITLE

PE-SR047AL

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FSM NO.	CAD FILE	SCALE	SIZE	2233
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