



# 1.85mm Female Connector Clamp/Solder (Captive Contact) Attachment End Launch PCB, Removable End Launch, Low Profile

## RF Connectors Technical Data Sheet

PE45516

### Configuration

- 1.85mm Female Connector
- 50 Ohms
- Straight Body Geometry
- End Launch Interface Type
- Clamp/Solder (Captive Contact) Attachment

### Features

- Max. Operating Frequency 67 GHz
- Good VSWR of 1.4:1
- Gold Plated Beryllium Copper Contact
- Reusable end launch installation
- PCB Solder or Solderless Contact
- M1.6-0.35 Mounting Screws

### Applications

- General Purpose Test
- PCB Applications
- Coplanar Waveguide Edge Launches
- Signal Integrity Measurements
- Chip Evaluations
- SERDES
- 25 GbE
- Substrate Characterization
- Test Fixtures

### Description

Pasternack's PE45516 1.85mm removable end launch PCB connector is part of our full line of RF components available for same-day shipping. Our 1.85mm solderless edge launch connector operates to a maximum frequency of 67 GHz and offers a low VSWR of 1.4:1. The clamp-on removable design allows this connector to be reused, supporting multiple chip evaluations, signal integrity and millimeter wave applications.

Our 1.85mm solderless end launch PCB connector PE45516 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 superior signal integrity, higher data rates or simply a test fixture, Pasternack has the right high speed PCB edge launch connections for you.

### Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		67	GHz
VSWR			1.4:1	
Insertion Loss			0.5	dB
Operating Voltage (AC)			400	Vrms

#### Electrical Specification Notes:

Actual VSWR performance is largely dependent on circuit board design. For optimal results, the connector and circuit launch geometry should be modeled using Electromagnetic Simulation tools.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [1.85mm Female Connector Clamp/Solder \(Captive Contact\) Attachment End Launch PCB, Removable End Launch, Low Profile PE45516](#)



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**Mechanical Specifications**

**Size**

Length	0.789 in [20.04 mm]
Width/Dia.	0.5 in [12.70 mm]
Height	0.5 in [12.7 mm]

**Material Specifications**

Description	Material	Plating
Contact	Beryllium Copper	Gold
Insulation	PEI	
Outer Conductor	Passivated Stainless Steel	
Body	Passivated Stainless Steel	

Mechanical Specification Notes:  
Launch Pin is Gold Plated Beryllium Copper

**Environmental Specifications**

**Temperature**

Operating Range	-40 to +125 deg C
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**Compliance Certifications** (see [product page](#) for current document)

**Plotted and Other Data**

Notes:

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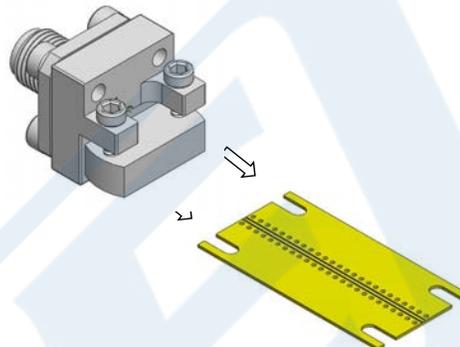
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**Assembly Instruction**

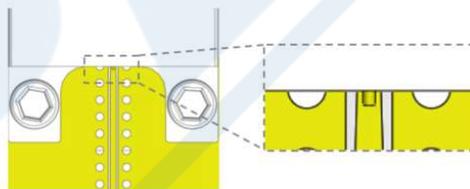
Step 1: Mount the end launch connector in the desired position on the board.

Step 2: Center the connector on the trace.



Step 3: Verify that the transition block is secured on the board.

Step 4: Tighten the M1.6-0.35 mounting screws to the boards suggested torque or until the connectors is secure.

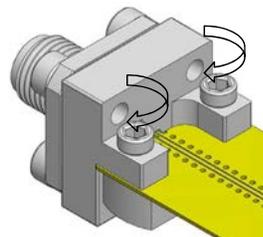


(Steps 5-7 optional, depending on application)

Step 5: If soldering the launch pin to the trace, flow solder the entire length of the contact area.

Step 6: To avoid performance mistakes, remove excess solder.

Step 7: Clean any residue from around the solder joint.



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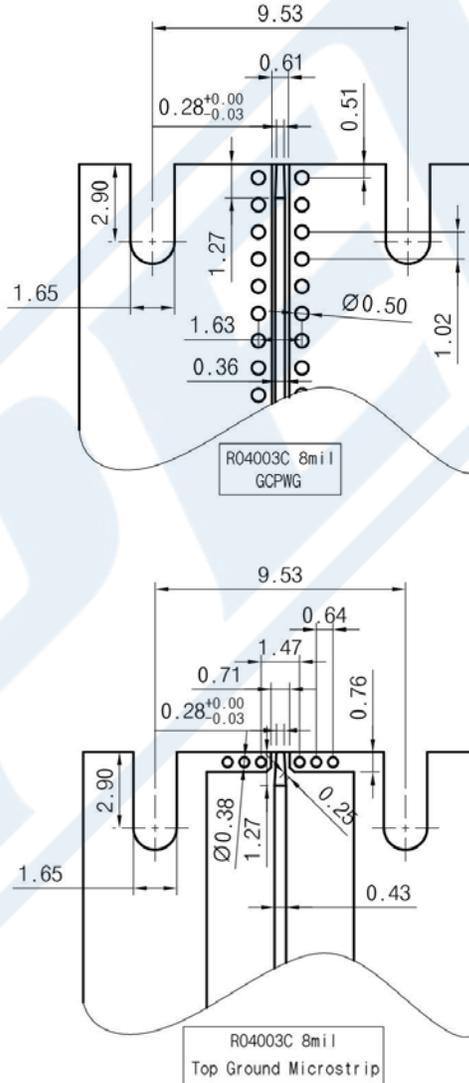


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Recommended PCB Cutouts



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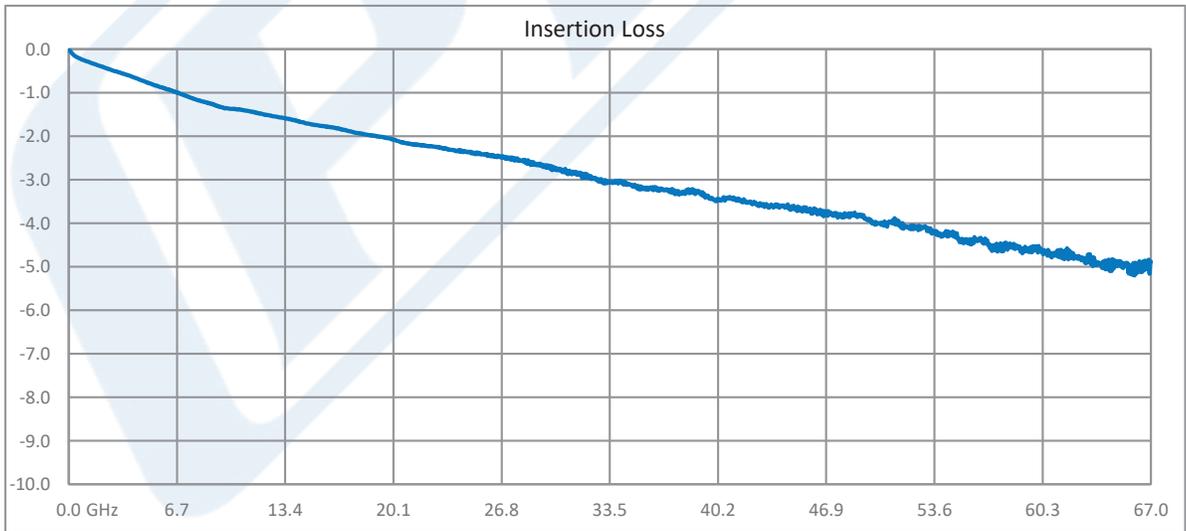
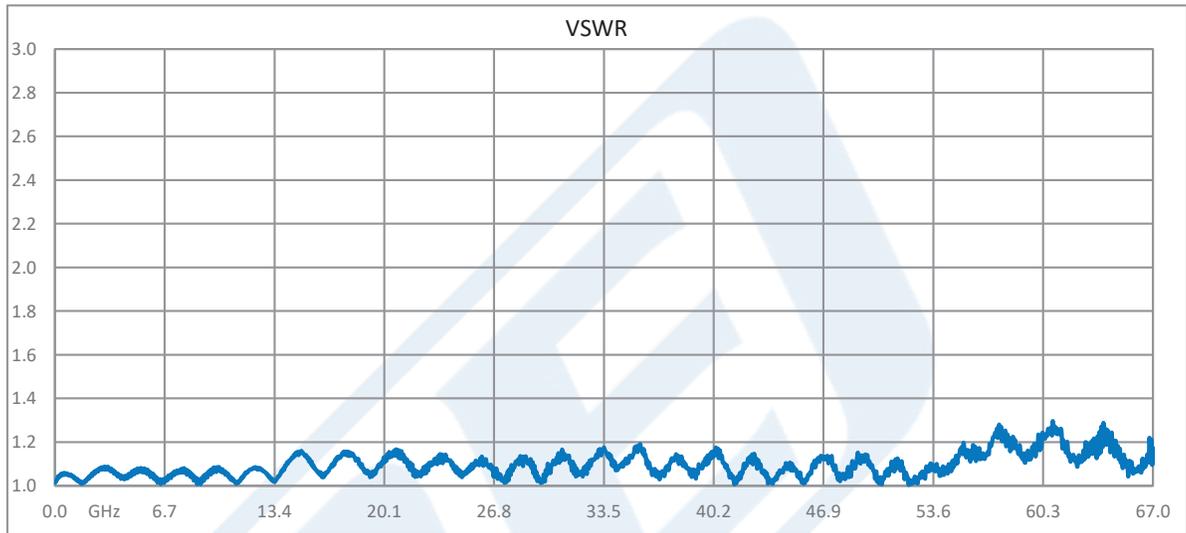


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Typical Performance Data



Measurement is for two connectors with 1.0 inch (25.4mm) length of substrate

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1.85mm Female Connector Clamp/Solder (Captive Contact) Attachment End Launch PCB, Removable End Launch, Low Profile 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.

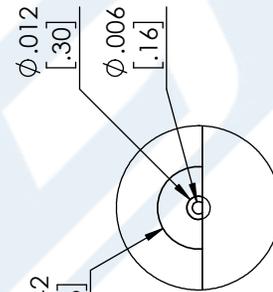
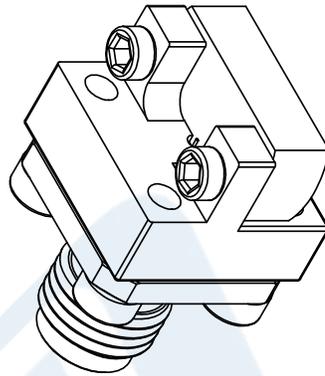
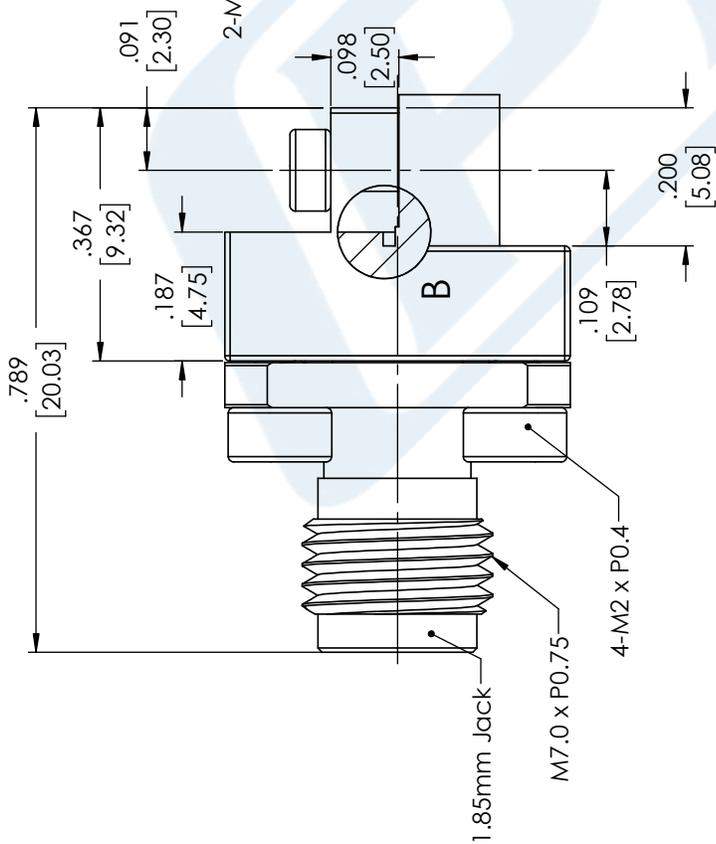
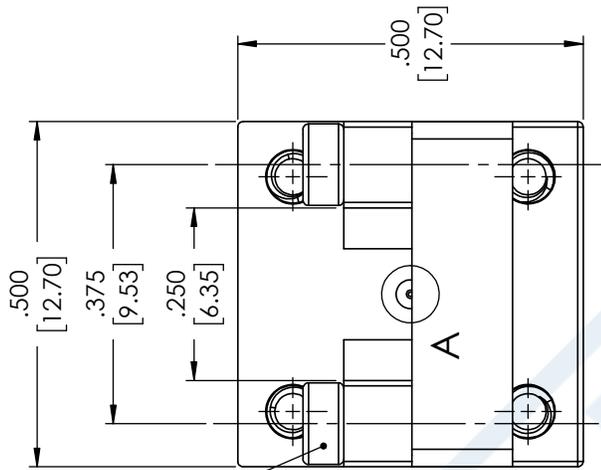
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URL: <https://www.pasternack.com/1.85mm-female-end-launch-pcb-connector-pe45516-p.aspx>

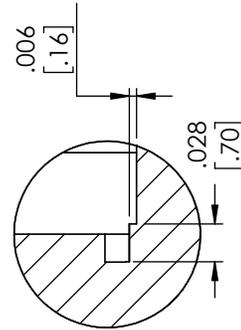
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE45516 CAD Drawing

1.85mm Female Connector Clamp/Solder (Captive Contact) Attachment  
End Launch PCB, Removable End Launch, Low Profile



DETAIL A



DETAIL B  
CENTER CONDUCTOR

STANDARD TOLERANCES

- .X ±0.2
- .XX ±0.01
- .XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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  
PE45516

CAD FILE 09/12/18

SCALE N/A

SIZE A

CN2245

**PASTERNAK**  
THE ENGINEER'S RF SOURCE

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