

# MAXIMUM SOLUTIONS

## Mill-Max Announces New Press-Fit PCB Pins for Plated-through Holes

*Precision machined press-fit pins with venting features maximize termination options*



Mill-Max Manufacturing Corp., Inc. today announces four new pins specifically designed for press-fit into PCB plated-through holes, providing a secure connection while maintaining plated-through hole integrity and continuity. These new PCB pins incorporate square press-fit geometry and angled vent features making them suitable for solderless press-fit or press-fit and solder PCB termination.

The four pins presented here are double tail header pins featuring a square press-fit shank, a round tail and a standoff body in between. When these pins are pressed into a plated through hole the points (the major or circumscribed diameter) of the square are set or imbedded in the hole while the flat sides of the feature (minor or inscribed diameter) provide relief, allowing the remainder of the plated through hole barrel to remain intact. The result is internal board layers are not disconnected when the pin is pressed in. With a properly specified hole size, the polygon shaped press-fit feature will allow the pin to be secured in the hole while maintaining continuity throughout all the layers of the PCB.

Often, these pins are used as the output terminals in applications with more demanding mechanical/ electrical requirements such as power supplies, power converters, rectifiers, relays and any device subject to blind mating or rough handling. The press-fit end terminates to a board inside the device while the exposed tails are typically plugged into sockets or soldered into PCB holes by the user. In the latter case, vents located at the pin end allow soldering gasses to escape enabling better solder flow. Another common use for these pins is in board stacking applications, particularly those used in power environments.

Mill-Max employs advanced machining technology to manufacture pins with exact press-fit features to suit a variety of hole sizes and assembly requirements along with precise body lengths to deliver consistent, controlled standoff heights between boards.

Part Number	Pin Diameter (inches)	Press-fit Diameter (inches)(+/- .0005")	Press-fit Shape	Vent Location
1655-0-00-XX-00-00-03-0	.040	.0495	Square	Press-fit side
4219-0-05-XX-00-00-03-0	.040	.0495	Square	Press-fit side
5459-0-00-XX-00-00-03-0	.040	.050	Square	Pin side
9061-0-00-XX-00-00-03-0	.040	.0495	Square	Pin side

The pins offered here are samples of the many configurations that can be manufactured; the table above provides some details of their features. Please contact the technical support team at Mill-Max manufacturing to discuss your requirements and applications.

For more information, please visit [www.mill-max.com/pr689](http://www.mill-max.com/pr689).



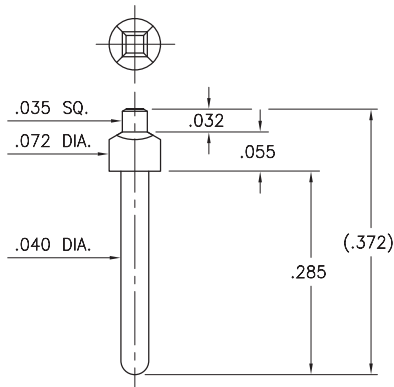
# MALE PCB PINS

## PRINTED CIRCUIT PINS

### 1655

1655-0-00-XX-00-00-03-0

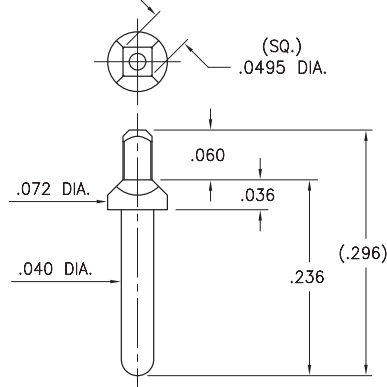
Solderless press-fit pin for plated through-hole  
Recommended drilled hole size: .0505 (1,28mm)



### 4219

4219-0-05-XX-00-00-03-0

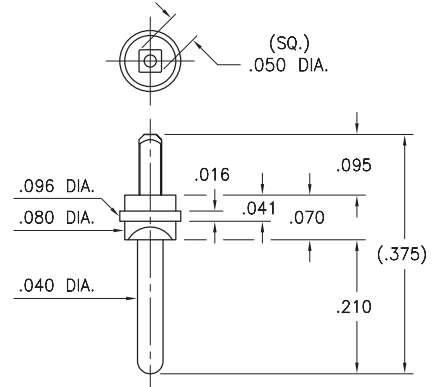
Solderless press-fit pin for plated through-hole  
Recommended drilled hole size: .0505 (1,28mm)



### 5459

5459-0-00-XX-00-00-03-0

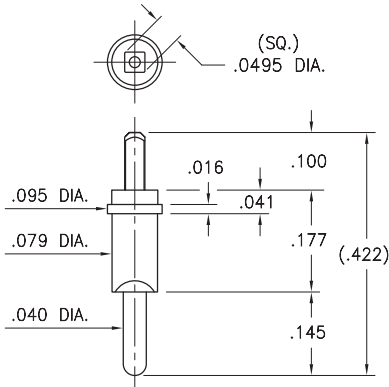
Solderless press-fit pin for plated through-hole  
Recommended drilled hole size: .051 (1,3mm)



### 9061

9061-0-00-XX-00-00-03-0

Solderless press-fit pin for plated through-hole  
Recommended drilled hole size: .0505 (1,28mm)



Recommended drilled hole sizes are prior to plating of the PCB and based on typical copper deposition of .5 - 1 oz. This results in a reduction of hole size by approximately .0015" - .003". Depending on surface plating, typical finished hole sizes are .003" - .005" smaller than drilled hole sizes. The finished hole size tolerance for press-fit applications should be specified as +/- .002"

#### SPECIFICATIONS:

**Pin Material:** Brass Alloy 360, 1/2 Hard  
( Except where noted ) \*

**Dimensions:** Inches

**Tolerances On:** Lengths:  $\pm .005$   
Diameters:  $\pm .002$   
Angles:  $\pm 2^\circ$

RoHS-2  
2011/65/EU

**ORDER CODE:** XXXX - 0 - 0X - XX - 00 - 00 - 03 - 0

**BASIC PART #**

**SPECIFY PIN FINISH:**

- 01 200  $\mu$ " TIN/LEAD OVER NICKEL
- ◆ 80 200  $\mu$ " TIN OVER NICKEL (RoHS)
- ◆ 15 10  $\mu$ " GOLD OVER NICKEL (RoHS)
- ◆ 21 20  $\mu$ " GOLD OVER NICKEL (RoHS)
- ◆ 34 50  $\mu$ " GOLD OVER NICKEL (RoHS)