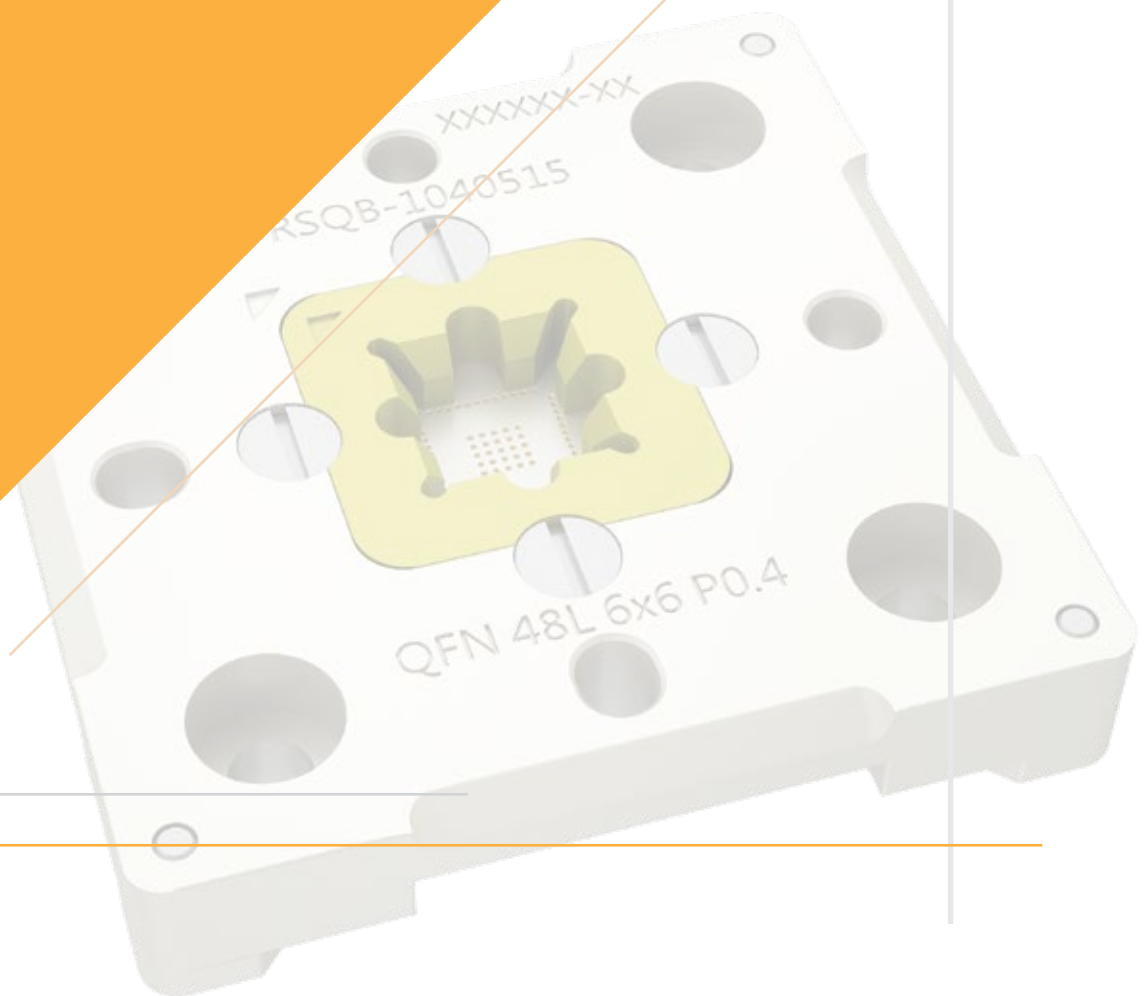


# Semiconductor Testing Solutions

Testing Solutions  
IC Testing Probes



C.C.P. CONTACT PROBES

# Panel Test

Most electronic devices use displays to interact with the user. Those displays are often fragile which requires appropriate testing solutions. Pogo pins are especially suitable for this type of application due to their customized tip, which protects the DUT from scratches.

## Design Concept



Panel Pin Housing

### Panel Test Housing

The housing is installed on a test head which contacts the panel directly. To protect the panel from damage, the head is rounded which prevents scratching of the panel surface.

Panel Pin Housing	Specification
<b>Min. Pitch</b>	0.45 mm
<b>Panel Size</b>	50"~85"
<b>Housing Material</b>	Peek
<b>Life Time (Pin)</b>	>200,000



B type

E type

D type

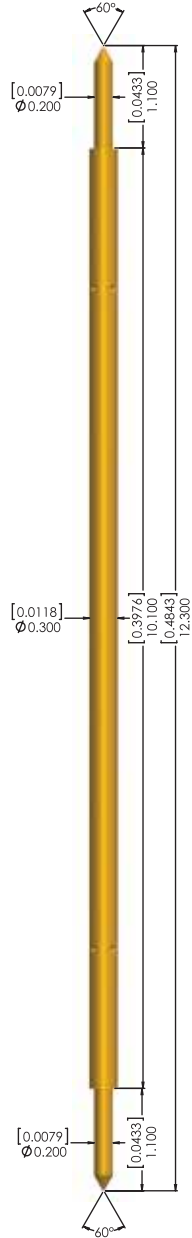
### Panel Pin Head Type

A conical tip is able to puncture oxide layers and has a low chance to leave scratches on the display. We usually recommend the D type for panel tests, to eliminate the chance of scratches.

# Probe Specifications

Unit:mm; [ ]:in

## DE1-030BB10-01A0



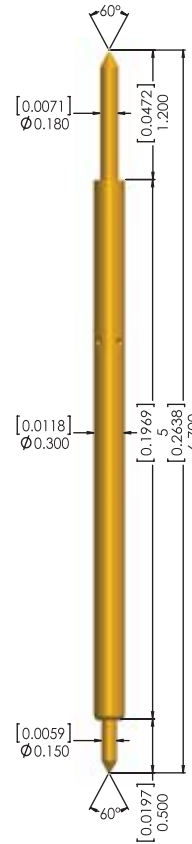
**Material**  
 Top Plunger  
 Sk<sub>4</sub>, Au plated  
 Barrel  
 PhBz, Au plated  
 Spring  
 SWP, Au plated  
 Bottom Plunger  
 Sk<sub>4</sub>, Au plated

**Mechanical Spec.**  
 Recommended Travel  
 1.25mm  
 Full Travel  
 1.90mm  
 Spring Force  
 20g±20%@1.25mm  
 Operating Temp.  
 -15°C~125°C

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000  
 Current Rating 1A continuous  
 Contact Resistance <175mΩ(AVG)  
 Characteristic Impedance 67Ω  
 Insertion Loss -1dB@3.34GHz  
 Return Loss -20dB@0.87GHz  
 Time Delay 67.01 psec  
 Loop Inductance 4.49 nH  
 Capacitance 1 pF

## DE1-030BB50-01A0



**Material**  
 Top Plunger  
 Sk<sub>4</sub>, Au plated  
 Barrel  
 PhBz, Au plated  
 Spring  
 SWP, Au plated  
 Bottom Plunger  
 BeCu, Au plated

**Mechanical Spec.**  
 Recommended Travel  
 0.65mm  
 Full Travel  
 1.00mm  
 Spring Force  
 13g±20%@0.65mm  
 Operating Temp.  
 -15°C~125°C

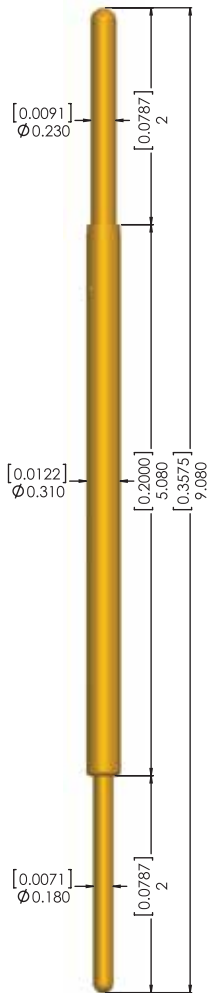
### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000  
 Current Rating 1A continuous  
 Contact Resistance <175mΩ(AVG)  
 Characteristic Impedance 45Ω  
 Insertion Loss -1dB>20GHz  
 Return Loss -20dB@3.35GHz  
 Time Delay 32.8 psec  
 Loop Inductance 1.48 nH  
 Capacitance 0.73 pF

# Probe Specifications

Unit:mm; [ ]:in

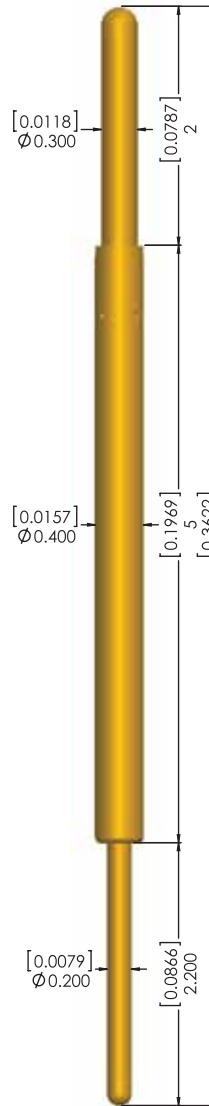
## DE3-031DD50-01A0



**Material**  
 Top Plunger  
 BeCu , Au plated  
 Barrel  
 PhBz , Au plated  
 Spring  
 SWP , Au plated  
 Bottom Plunger  
 BeCu , Au plated

**Mechanical Spec.**  
 Recommended Travel  
 1.00mm  
 Full Travel  
 2.00mm  
 Spring Force  
 20g±20%@1.00mm  
 Operating Temp.  
 -15°C~125°C

## DE3-040DD50-01A0



**Material**  
 Top Plunger  
 BeCu , Au plated  
 Barrel  
 PhBz , Au plated  
 Spring  
 SWP , Au plated  
 Bottom Plunger  
 BeCu , Au plated

**Mechanical Spec.**  
 Recommended Travel  
 1.00mm  
 Full Travel  
 2.00mm  
 Spring Force  
 20g±20%@1.00mm  
 Operating Temp.  
 -15°C~125°C

### Electrical Spec.



Pitch: 0.4mm Socket Material: Peek 1000

Current Rating 1A continuous  
 Contact Resistance <75mΩ(AVG)  
 Characteristic Impedance 41.54 Ω  
 Insertion Loss -1dB@14.66GHz  
 Return Loss -20dB@2.03GHz  
 Time Delay 42.37 psec  
 Loop Inductance 1.76 nH  
 Capacitance 1.02 pF

### Electrical Spec.



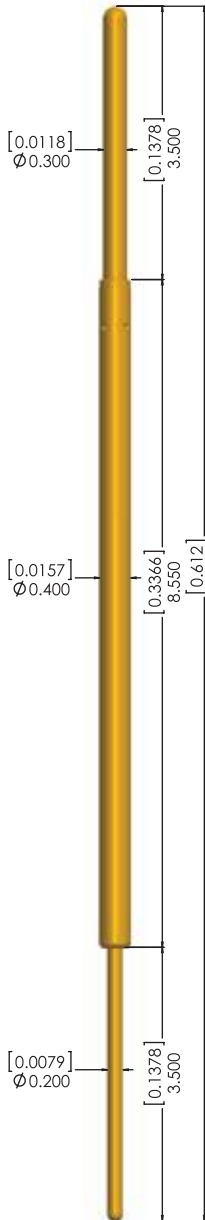
Pitch: 0.5mm Socket Material: Peek 1000

Current Rating 1A continuous  
 Contact Resistance <75mΩ(AVG)  
 Characteristic Impedance 42.13Ω  
 Insertion Loss -1dB@10.93GHz  
 Return Loss -20dB@2.05GHz  
 Time Delay 46.76 psec  
 Loop Inductance 1.97 nH  
 Capacitance 1.11 pF

# Probe Specifications

Unit:mm; [ ]:in

## DE3-040DD85-01A0



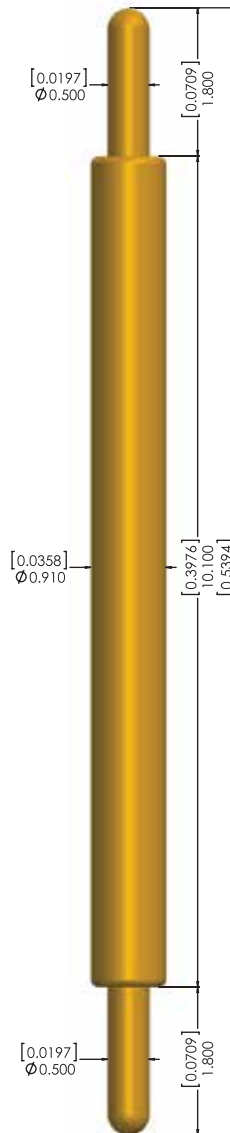
### Material

**Top Plunger**  
BeCu , Au plated  
**Barrel**  
PhBz , Au plated  
**Spring**  
SUS, Au plated  
**Bottom Plunger**  
BeCu , Au plated

### Mechanical Spec.

**Recommended Travel**  
2.50mm  
**Full Travel**  
3.00mm  
**Spring Force**  
20g±20%@2.50mm  
**Operating Temp.**  
-55°C~150°C

## DE1-091DD10-01A0



### Material

**Top Plunger**  
BeCu , Au plated  
**Barrel**  
PhBz , Au plated  
**Spring**  
SWP , Au plated  
**Bottom Plunger**  
BeCu , Au plated

### Mechanical Spec.

**Recommended Travel**  
2.00mm  
**Full Travel**  
3.00mm  
**Spring Force**  
20g±20%@2.00mm  
**Operating Temp.**  
-15°C~125°C

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



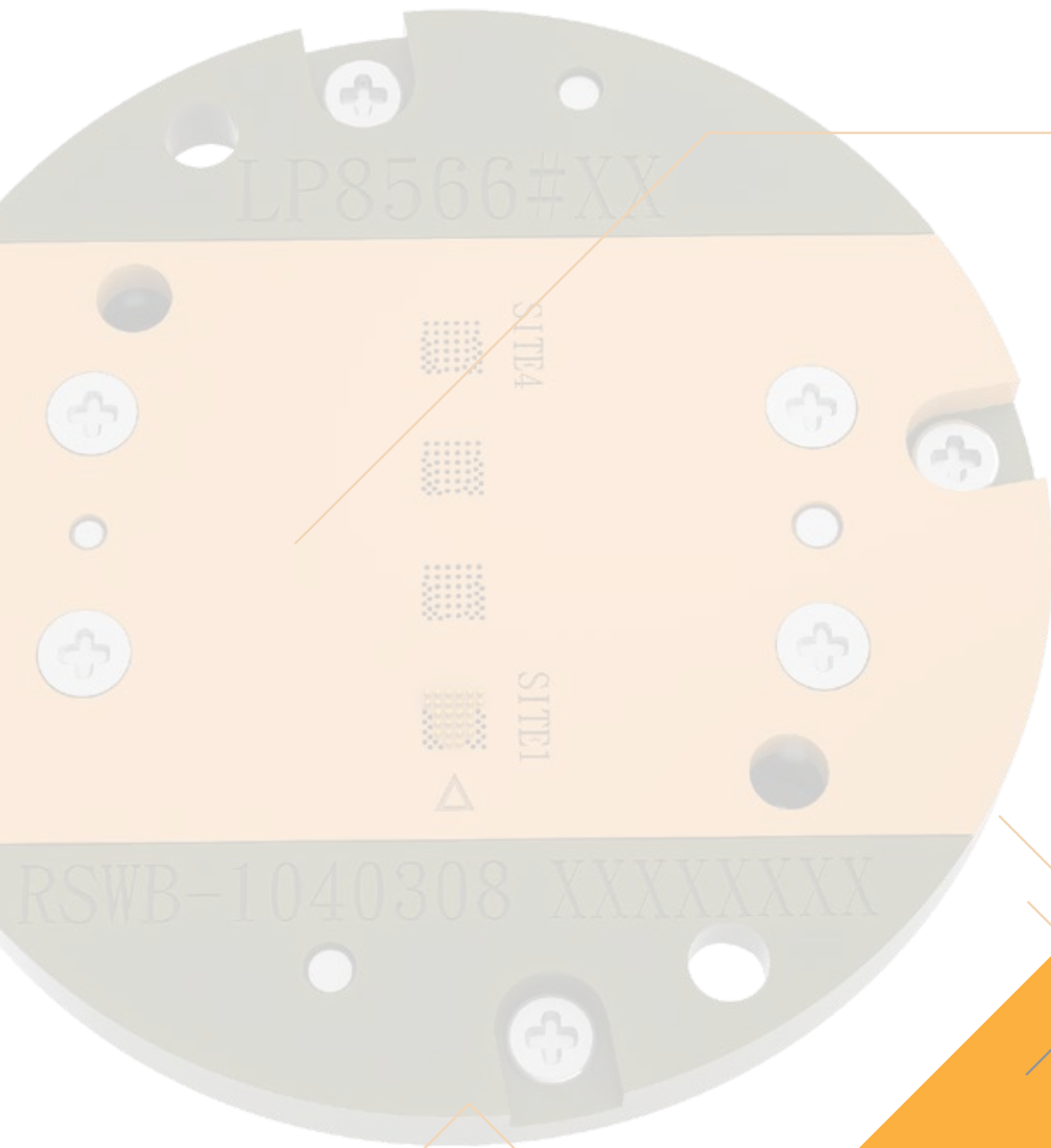
**Current Rating** 1A continuous  
**Contact Resistance** <75mΩ(AVG)  
**Characteristic Impedance** 40 Ω  
**Insertion Loss** -1dB@6.08GHz  
**Return Loss** -20dB@1.06GHz  
**Time Delay** 74.8 psec  
**Loop Inductance** 3 nH  
**Capacitance** 1.87 pF

### Electrical Spec.

Pitch: 1.0mm Socket Material: Peek 1000



**Current Rating** 2A continuous  
**Contact Resistance** <175mΩ(AVG)  
**Characteristic Impedance** 24.2Ω  
**Insertion Loss** -1dB@1.52GHz  
**Return Loss** -20dB@0.28GHz  
**Time Delay** 72.6 psec  
**Loop Inductance** 1.76 nH  
**Capacitance** 3 pF



**Dongguan**  
+86-769-85151668

**Kunshan**  
+86-512-57378981

**San Jose**  
+1-669-224-9157

**Beijing**  
+86-10-53856584

**Taipei Headquarters**  
+886-2-29612525

**Frankfurt**  
+49-171-3669549

**Shenzhen**  
+86-755-82794229

**Kaohsiung**  
+886-7-3601161

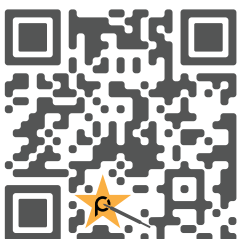
**Bangalore**  
+91-7619689680

**Chengdu**  
+86-28-87440813

**Zhubei**  
+886-3-5506368

**Singapore**  
+65-81391296

**Hongkong**  
+852-23014671



<http://www.pccp.com.tw>  
[ccp\\_service@pccp.com.tw](mailto:ccp_service@pccp.com.tw)