

# General Final Test

C.C.P. has over 25 years experience in the development and manufacturing of sockets and pins. Our team of researchers is constantly improving the materials and manufacturing process to offer our customers the best solutions. We have developed more than 200 types of customized pins and more than 30 types of above standard pins that easily reach the yield standard at simulating high-frequency performance and deliver superb performance to our clients.

## Design Concept

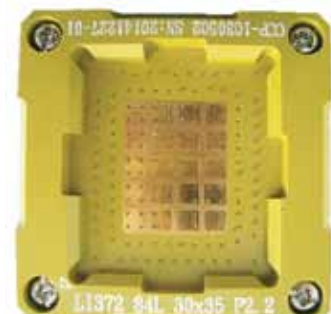
Applied IC package  
BGA, QFN, QFP, LGA, CSP



QFN Socket  
Pitch 0.3mm



BGA Socket  
Pitch 0.8mm



LGA Socket  
Pitch:2.2mm

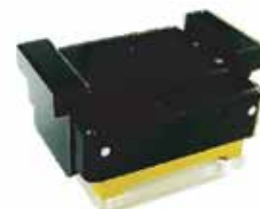
Pitch  
0.2~2.2mm

General IC test Socket	Specification
IC Package Size	1.5X1.5~38X38 mm <sup>2</sup>
Min. Pitch	0.2mm
Material	Torlon 4203, Torlon 5530, PEEK, PEEK ceramic, SCP 5000
Data Rate	6 Gpbs/ 8 Gpbs/ 12 Gpbs <small>Performance will be different according to testing condition</small>
Life Time (Pin)	>200K

Lid



Knob

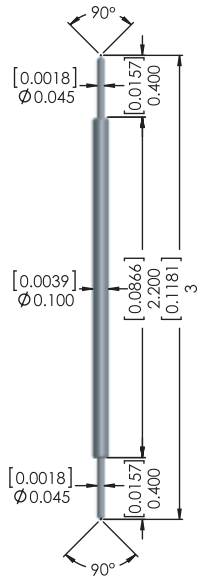


Block

# Probe Specification

Unit:mm; [ ]:in

## PE1-010EE22-01A0



### Material

Top Plunger

Pd alloy

Barrel

Ni alloy

Spring

SWP, Au plated

Bottom plunger

Pd alloy

### Mechanical Spec.

Recommended travel

0.35mm

Full travel

0.50mm

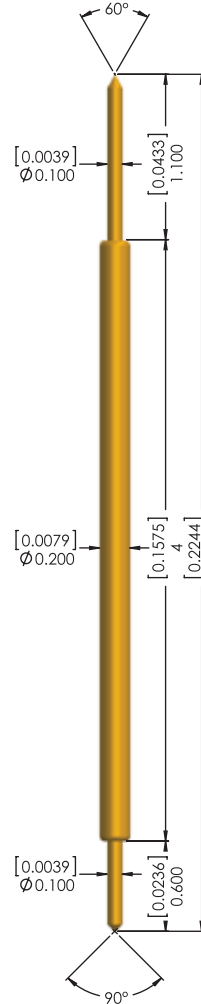
Spring force

79±20% @ 0.35mm

Operating Temp.

-15°C~125°C

## DE1-020BE40-01A0



### Material

Top Plunger

SK4, Au plated

Barrel

PhBz, Au plated

Spring

SWP, Au plated

Bottom plunger

SK4, Au plated

### Mechanical Spec.

Recommended travel

0.60mm

Full travel

0.90mm

Spring force

12g±20% @ 0.60mm

Operating Temp.

-15°C~125°C

### Electrical Spec.

Pitch: 0.2mm Socket Material: Peek 1000



Current rating 0.6A continuous

Contact Resistance <300mΩ(AVG)

Characteristic impedance 80.8Ω

Insertion loss -1dB @ 9.9GHz

Return loss -20dB @ 2.48GHz

Time delay 13.74 psec

Loop inductance 1.11 nH

Capacitance 0.17 pF

### Electrical Spec.

Pitch: 0.3mm Socket Material: Peek 1000



Current rating 1A continuous

Contact Resistance <200mΩ(AVG)

Characteristic impedance 55.9Ω

Insertion loss -1dB > 20GHz

Return loss -20dB @ 12.88GHz

Time delay 26.83 psec

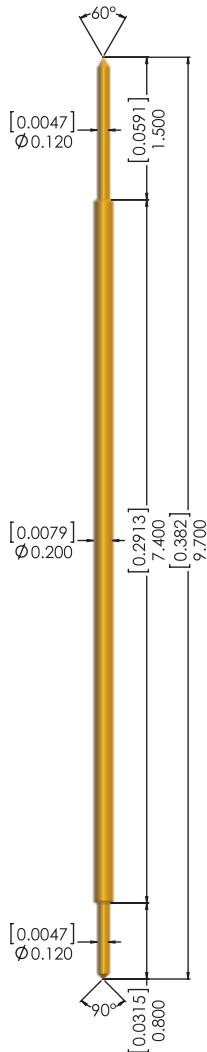
Loop inductance 1.5 nH

Capacitance 0.48 pF

# Probe Specification

Unit:mm; [ ]:in

## DE1-020BE74-01A0



### Material

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

### Mechanical Spec.

Recommended travel  
0.80mm  
Full travel  
1.30mm  
Spring force  
6g±20%@0.80mm  
Operating Temp.  
-15°C~125°C

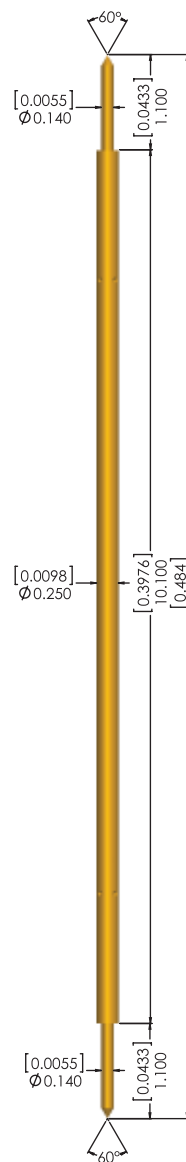
### Electrical Spec.

Pitch: 0.3mm Socket Material: Peek 1000

Current rating 0.5A continuous  
Contact Resistance <200mΩ(AVG)  
Characteristic impedance 53.07Ω  
Insertion loss -1dB >20GHz  
Return loss -20dB@8.14GHz  
Time delay 46.17psec  
Loop inductance 2.45 nH  
Capacitance 0.87 pF



## DE1-025BB10-02A0



### Material

Top Plunger  
SK4, Au plated  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
SK4, Au plated

### Mechanical Spec.

Recommended travel  
1.45mm  
Full travel  
2.20mm  
Spring force  
30g±20%@1.45mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000

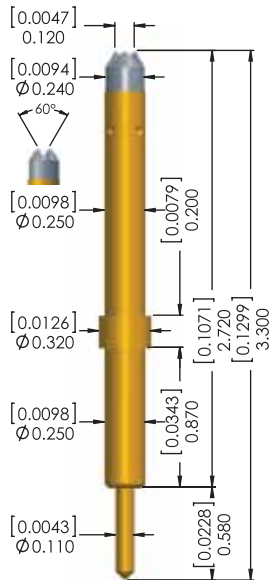
Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 51.31Ω  
Insertion loss -1dB >20GHz  
Return loss -20dB@7.63GHz  
Time delay 55.93 psec  
Loop inductance 2.87 nH  
Capacitance 1.09 pF



# Probe Specification

Unit:mm; [ ]:in

## PE4-025EF24-01A0



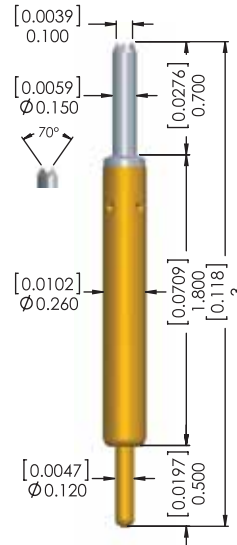
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.51mm  
Spring force  
23g±20%@0.40mm  
Operating Temp.  
-15°C~125°C

## PE3-026DF17-01F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.35mm  
Full travel  
0.50mm  
Spring force  
20g±20%@0.35mm  
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 50.15 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB>20GHz  
Time delay 16.55 psec  
Loop inductance 0.83 nH  
Capacitance 0.33 pF

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 57.68 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@9.16GHz  
Time delay 13.31 psec  
Loop inductance 0.77 nH  
Capacitance 0.23 pF



Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

Pitch 0.65

Pitch 0.8

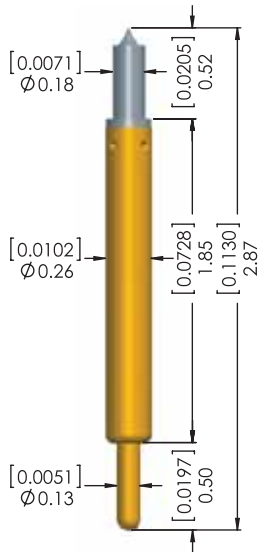
Pitch 1.0

Pitch 1.27

# Probe Specification

Unit:mm; [ ]:in

## PE3-026BD18-01A0



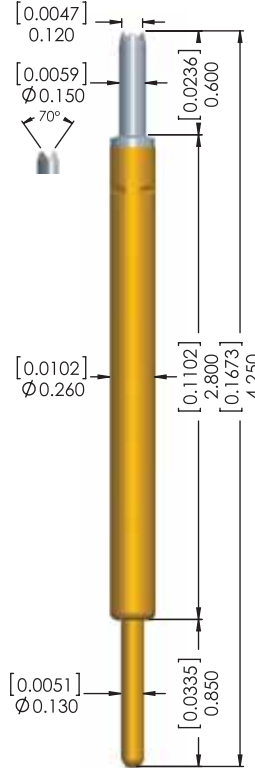
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
BeCu, Au plated

### Mechanical Spec.

Recommended travel  
0.30mm  
Full travel  
0.40mm  
Spring force  
24g±20%@0.30mm  
Operating Temp.  
-15°C~125°C

## PE3-026DF27-01F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
BeCu, Au plated

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.55mm  
Spring force  
22g±20%@0.40mm  
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 54.77 Ω  
Insertion loss -1dB@>20GHz  
Return loss -20dB@16GHz  
Time delay 12.6 psec  
Loop inductance 0.69 nH  
Capacitance 0.23 pF

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000

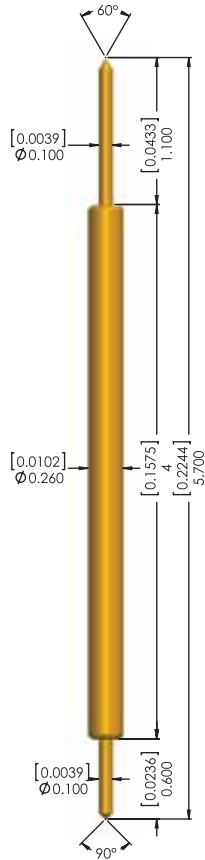


Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 54 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@18.9GHz  
Time delay 21.7 psec  
Loop inductance 1.18 nH  
Capacitance 0.40 pF

# Probe Specification

Unit:mm; [ ]:in

## DE1-026BE40-01A0



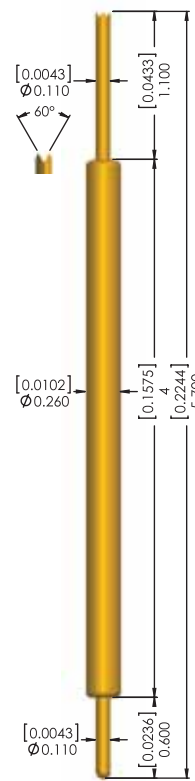
### Material

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

### Mechanical Spec.

Recommended travel  
0.65mm  
Full travel  
1.00mm  
Spring force  
14g±20%@0.65mm  
Operating Temp.  
-55°C~150°C

## DE1-026DF40-02A0



### Material

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

### Mechanical Spec.

Recommended travel  
0.65mm  
Full travel  
0.85mm  
Spring force  
18g±20%@0.65mm  
Operating Temp.  
-55°C~150°C

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 49.46 Ω  
Insertion loss -1dB@16.7 GHz  
Return loss -20dB@8.23GHz  
Time delay 27.7 psec  
Loop inductance 1.37 nH  
Capacitance 0.56 pF

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 47.71 Ω  
Insertion loss -1dB@17.81GHz  
Return loss -20dB@6.45GHz  
Time delay 27.67 psec  
Loop inductance 1.32 nH  
Capacitance 0.58 pF

# Probe Specification

Unit:mm; [ ]:in

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

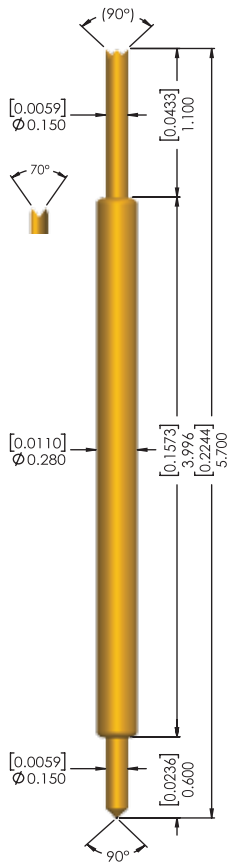
Pitch 0.65

Pitch 0.8

Pitch 1.0

Pitch 1.27

## DE1-028EF40-05A0



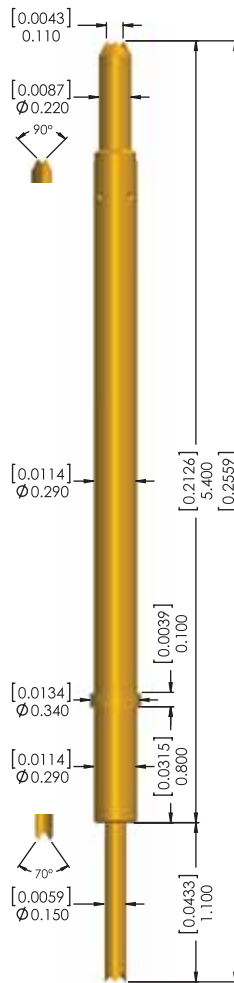
### Material

Top Plunger  
SK4, Au plated  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
SK4, Au plated

### Mechanical Spec.

Recommended travel  
0.65mm  
Full travel  
1.10mm  
Spring force  
28g $\pm$ 20%@0.65mm  
Operating Temp.  
-15°C~125°C

## DE4-029FF45-01A0



### Material

Top Plunger  
SK4, Au plated  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
BeCu, Au plated

### Mechanical Spec.

Recommended travel  
0.70mm  
Full travel  
1.10mm  
Spring force  
30g $\pm$ 20%@0.70mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175m $\Omega$ (AVG)  
Characteristic impedance 49.6 $\Omega$   
Insertion loss -1dB@17.49GHz  
Return loss -20dB@7.92GHz  
Time delay 27.7 psec  
Loop inductance 1.38nH  
Capacitance 0.56 pF

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000

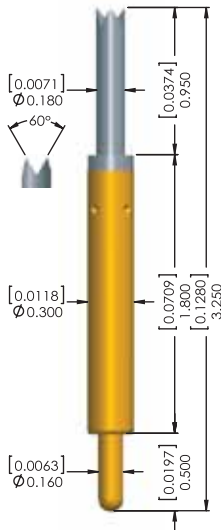


Current rating 1A continuous  
Contact Resistance <75m $\Omega$ (AVG)  
Characteristic impedance 44.38 $\Omega$   
Insertion loss -1dB>20GHz  
Return loss -20dB@3.77GHz  
Time delay 28.84 psec  
Loop inductance 1.28 nH  
Capacitance 0.65 pF

# Probe Specification

Unit:mm; [ ]:in

## PE3-030DF17-03A0



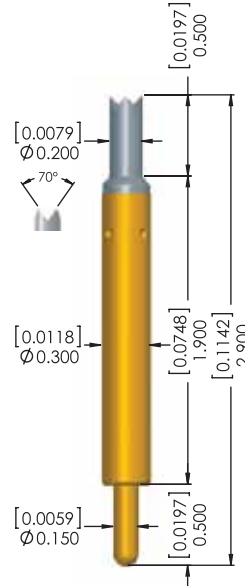
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
BeCu, Au plated

### Mechanical Spec.

Recommended travel  
0.35mm  
Full travel  
0.45mm  
Spring force  
27g±20%@0.35mm  
Operating Temp.  
-15°C~125°C

## PE3-030DF18-01A0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz, Au plated  
Spring  
SWP, Au plated  
Bottom plunger  
BeCu, Au plated

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.50mm  
Spring force  
35g±20%@0.40mm  
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 48.19 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@8.59GHz  
Time delay 14.94 psec  
Loop inductance 0.72 nH  
Capacitance 0.31 pF

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 42.36 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@6.47GHz  
Time delay 14.4 psec  
Loop inductance 0.61 nH  
Capacitance 0.34 pF

# Probe Specification

Unit:mm; [ ]:in

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

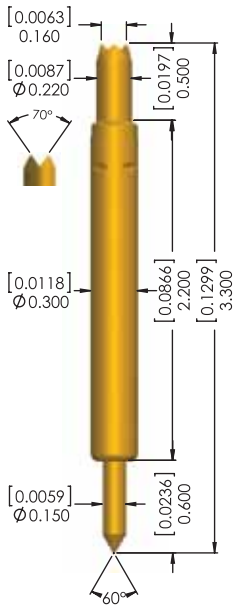
Pitch 0.65

Pitch 0.8

Pitch 1.0

Pitch 1.27

## DE3-030BF21-03F0



### Material

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

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.55mm  
Spring force  
30g±20%@0.40mm  
Operating Temp.  
-15°C~125°C

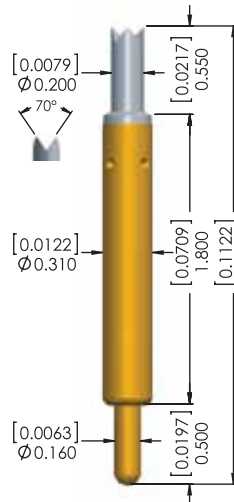
### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 42Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@7.15GHz  
Time delay 16.4 psec  
Loop inductance 0.69nH  
Capacitance 0.39 pF

## PE3-031DF17-03F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.35mm  
Full travel  
0.45mm  
Spring force  
35g±20%@0.35mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000

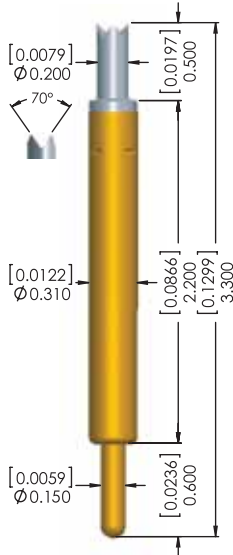


Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 39.9Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@4.5GHz  
Time delay 14.7 psec  
Loop inductance 0.59 nH  
Capacitance 0.37 pF

# Probe Specification

Unit:mm; [ ]:in

## PE3-031DF21-03F0



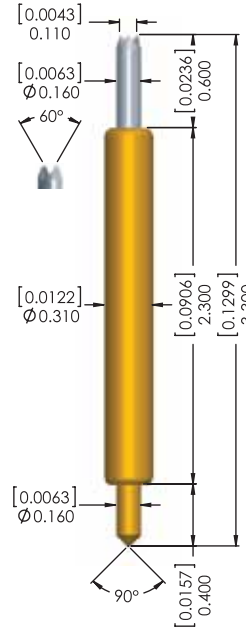
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.35 mm  
Full travel  
0.60mm  
Spring force  
35g±20%@0.35mm  
Operating Temp.  
-15°C~125°C

## PE1-031EF23-02F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.65mm  
Spring force  
30g±20%@0.40mm  
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 42.67Ω  
Insertion loss -1dB >20GHz  
Return loss -20dB@5.08GHz  
Time delay 16.64psec  
Loop inductance 0.71nH  
Capacitance 0.39 pF

### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000

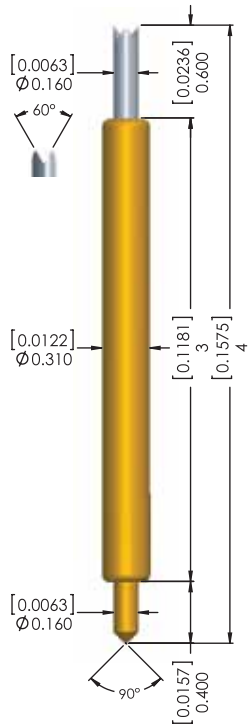


Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 40.14 Ω  
Insertion loss -1dB >20GHz  
Return loss -20dB@4.15GHz  
Time delay 14.45 psec  
Loop inductance 0.58 nH  
Capacitance 0.36 pF

# Probe Specification

Unit:mm; [ ]:in

## PE1-031EF30-02F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.60mm  
Full travel  
0.80mm  
Spring force  
31g±20%@0.60mm  
Operating Temp.  
-15°C~125°C

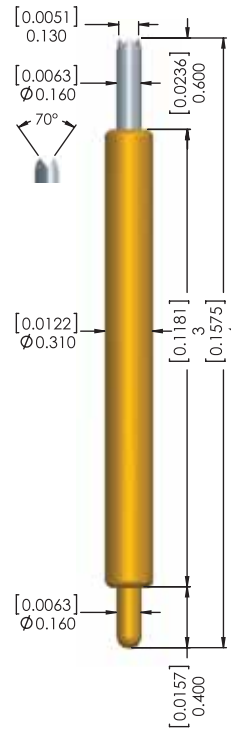
### Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 39.53Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@3.63 GHz  
Time delay 18.97 psec  
Loop inductance 0.75 nH  
Capacitance 0.48 pF

## PE1-031DF30-01F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.60mm  
Full travel  
0.80mm  
Spring force  
31g±20%@0.60mm  
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 40 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@3.9GHz  
Time delay 19.7 psec  
Loop inductance 0.8 nH  
Capacitance 0.49 pF

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

Pitch 0.65

Pitch 0.8

Pitch 1.0

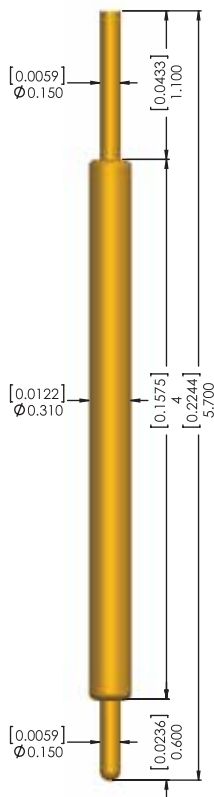
Pitch 1.27



# Probe Specification

Unit:mm; [ ]:in

## DE1-031DG40-01A0



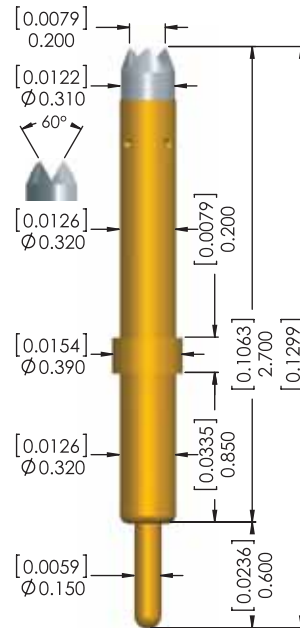
### Material

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

### Mechanical Spec.

Recommended travel  
0.65mm  
Full travel  
1.10mm  
Spring force  
379±20% @ 0.65mm  
Operating Temp.  
-15°C ~ 125°C

## PE4-032DF24-03F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.60mm  
Spring force  
309±20% @ 0.40mm  
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 42.8Ω  
Insertion loss -1dB@17.68GHz  
Return loss -20dB@4.05 GHz  
Time delay 27.97 psec  
Loop inductance 1.2 nH  
Capacitance 0.65 pF

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 43.3 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@5.44GHz  
Time delay 18.2 psec  
Loop inductance 0.79 nH  
Capacitance 0.42 pF

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

Pitch 0.65

Pitch 0.8

Pitch 1.0

Pitch 1.27

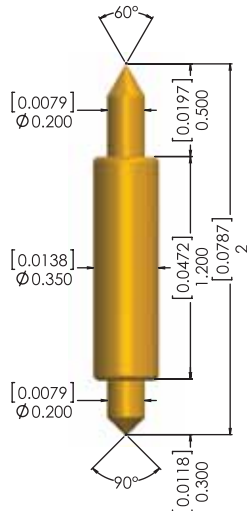
Pitch 1.27

17

# Probe Specification

Unit:mm; [ ]:in

## DE1-035BE12-01A0



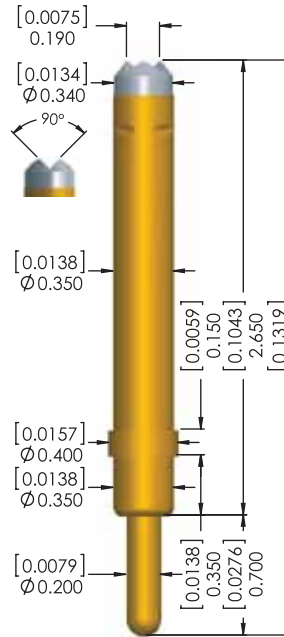
### Material

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

### Mechanical Spec.

Recommended travel  
0.30mm  
Full travel  
0.40mm  
Spring force  
18g±20%@0.30mm  
Operating Temp.  
-15°C~125°C

## PE4-035DF24-01F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SUS , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.45mm  
Full travel  
0.70mm  
Spring force  
32g±20%@0.45mm  
Operating Temp.  
-55°C~150°C

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 34.74Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@4.08GHz  
Time delay 10.07 psec  
Loop inductance 0.35nH  
Capacitance 0.29pF

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000

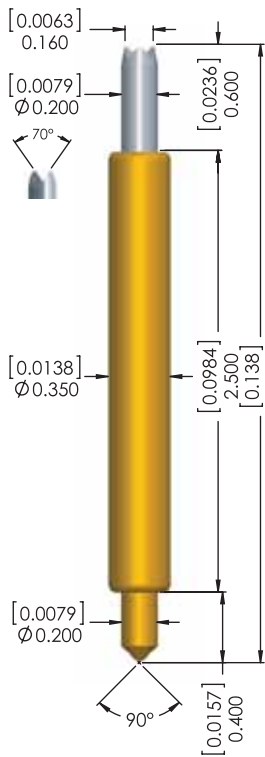


Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 39.8 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@3.94GHz  
Time delay 17.5 psec  
Loop inductance 0.70 nH  
Capacitance 0.44 pF

# Probe Specification

Unit:mm; [ ]:in

## PE1-035EF25-01F0



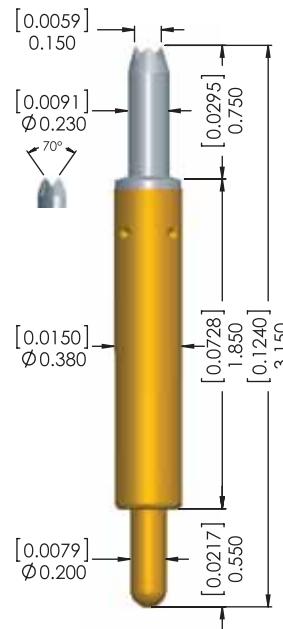
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.60mm  
Full travel  
0.80mm  
Spring force  
32g±20%@0.60mm  
Operating Temp.  
-15°C~125°C

## PE3-038DF17-03F0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.38mm  
Full travel  
0.55mm  
Spring force  
38g±20%@0.38mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 44Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@ 8.48GHz  
Time delay 18.5psec  
Loop inductance 0.82nH  
Capacitance 0.42pF

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 45.08 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@5.69GHz  
Time delay 13.97 psec  
Loop inductance 0.63 nH  
Capacitance 0.31 pF

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

Pitch 0.65

Pitch 0.8

Pitch 1.0

Pitch 1.27

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

Pitch 0.65

Pitch 0.8

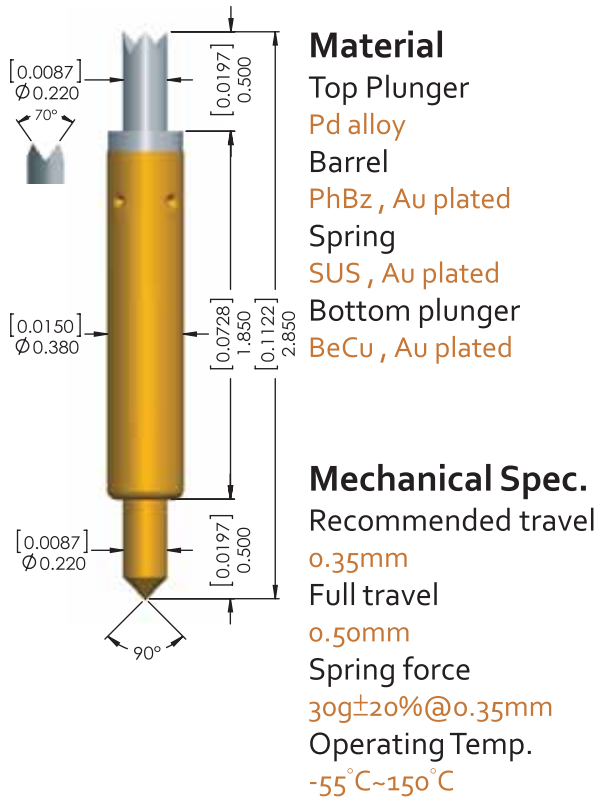
Pitch 1.0

Pitch 1.27

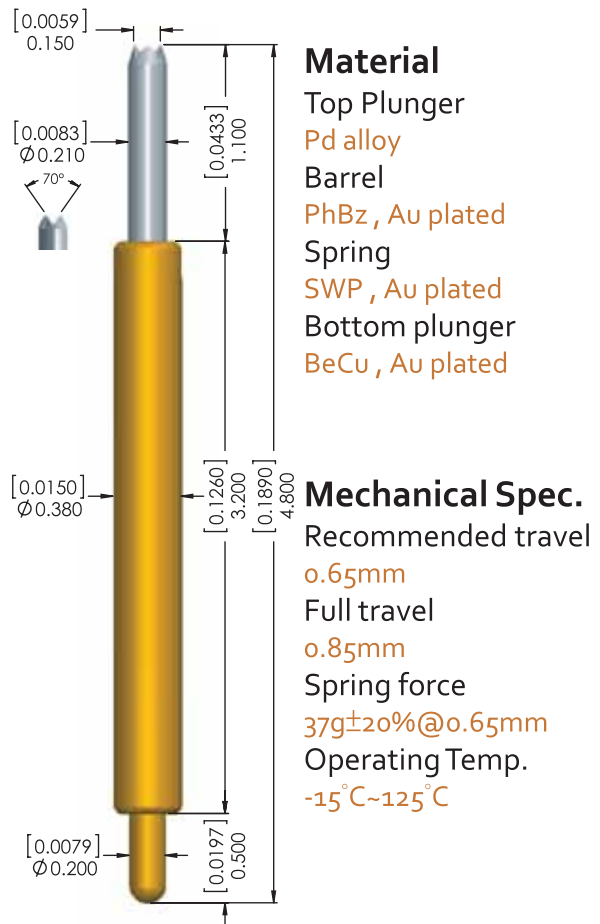
# Probe Specification

Unit:mm; [ ]:in

## PE3-038EF17-04A0



## PE1-038DF32-02F0



## Electrical Spec. G S G

Pitch: 0.5mm Socket Material: Peek 1000

Current rating 1A continuous  
 Contact Resistance <75mΩ(AVG)  
 Characteristic impedance 39.8 Ω  
 Insertion loss -1dB>20GHz  
 Return loss -20dB@4.5GHz  
 Time delay 15.5 psec  
 Loop inductance 0.62 nH  
 Capacitance 0.39 pF

## Electrical Spec. G S G

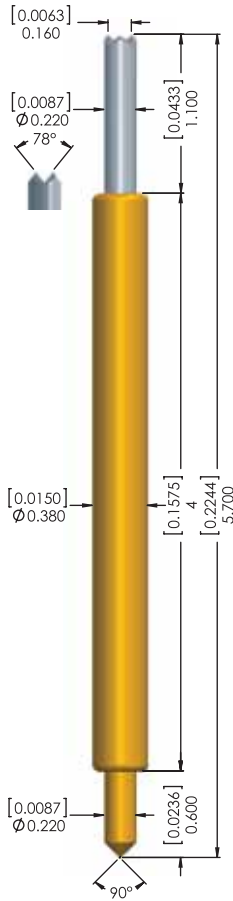
Pitch: 0.5mm Socket Material: Peek 1000

Current rating 1A continuous  
 Contact Resistance <175mΩ(AVG)  
 Characteristic impedance 39.5 Ω  
 Insertion loss -1dB>20GHz  
 Return loss -20dB@ 3 GHz  
 Time delay 25.2 psec  
 Loop inductance 1 nH  
 Capacitance 0.64 pF

# Probe Specification

Unit:mm; [ ]:in

## PE1-038EP40-01A0



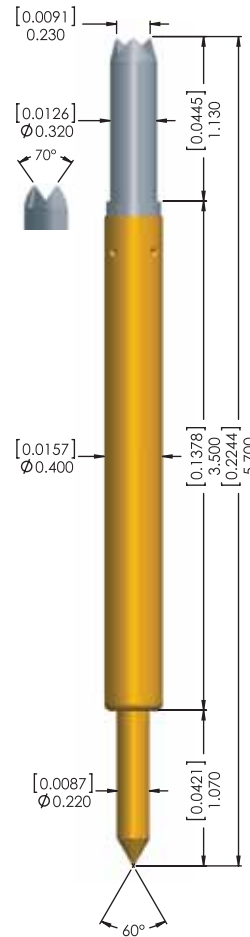
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SUS , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.65mm  
Full travel  
1.10mm  
Spring force  
40g±20%@0.65mm  
Operating Temp.  
-55°C~150°C

## PE3-040BF34-01A0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.70mm  
Full travel  
1.00mm  
Spring force  
30g±20%@0.70mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 42 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@3.82GHz  
Time delay 29.9 psec  
Loop inductance 1.26 nH  
Capacitance 0.71pF

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 38.29 Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@2.16GHz  
Time delay 27.95 psec  
Loop inductance 1.07 nH  
Capacitance 0.73 pF

# Probe Specification

Unit:mm; [ ]:in

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

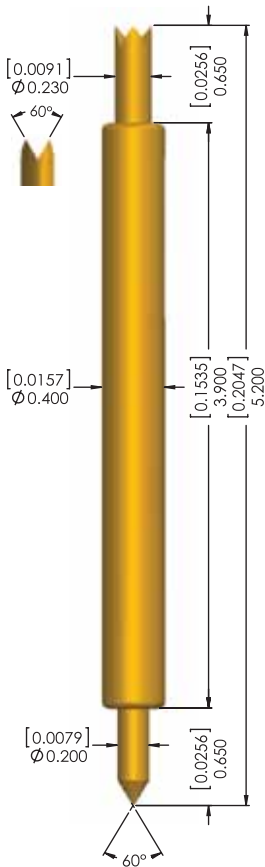
Pitch 0.65

Pitch 0.8

Pitch 1.0

Pitch 1.27

## DE1-040BF39-030



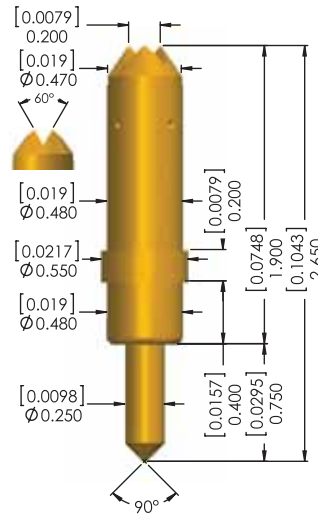
### Material

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

### Mechanical Spec.

Recommended travel  
0.65mm  
Full travel  
1.30mm  
Spring force  
25g±20%@0.65mm  
Operating Temp.  
-15°C~125°C

## DE4-048EF17-01F0



### Material

Top Plunger  
BeCu , Au plated  
Barrel  
Brass , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.50mm  
Full travel  
0.60mm  
Spring force  
27.5g±20%@0.50mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.5mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 36.58Ω  
Insertion loss -1dB@15.1GHz  
Return loss -20dB@1.99GHz  
Time delay 25.97psec  
Loop inductance 0.95nH  
Capacitance 0.71pF

### Electrical Spec.

Pitch: 0.65mm Socket Material: Peek 1000

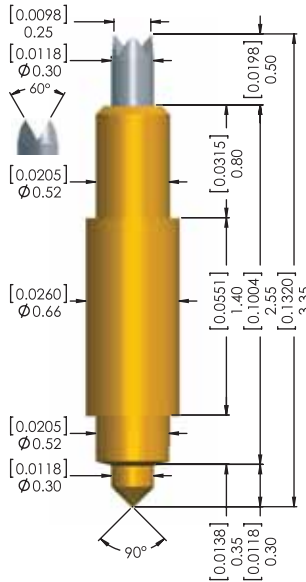


Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 36.5Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@3.54GHz  
Time delay 14.2psec  
Loop inductance 0.52nH  
Capacitance 0.39pF

# Probe Specification

Unit:mm; [ ]:in

## PE2-050EF25-01F0



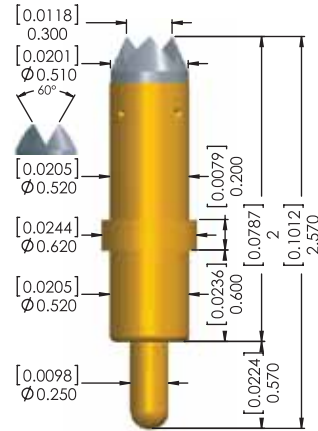
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SUS , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.45mm  
Full travel  
0.60mm  
Spring force  
30g±20%@0.45mm  
Operating Temp.  
-55°C~150°C

## PE4-052DF17-01A0



### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.40mm  
Full travel  
0.60mm  
Spring force  
35g±20%@0.40mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 34.8Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@2.25GHz  
Time delay 19.8psec  
Loop inductance 0.69nH  
Capacitance 0.57pF

### Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000



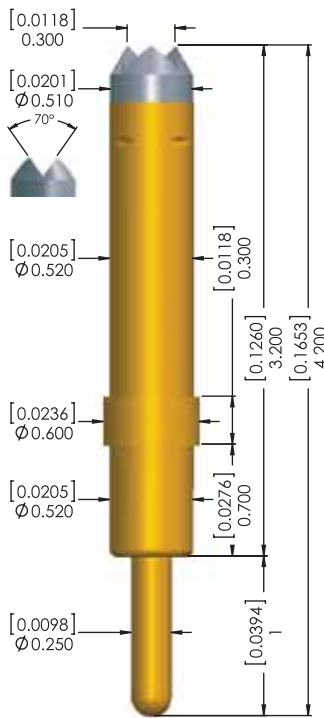
Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 38.7Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@4.45GHz  
Time delay 15.4psec  
Loop inductance 0.6nH  
Capacitance 0.4pF



# Probe Specification

Unit:mm; [ ]:in

## PE4-052DF28-01F0



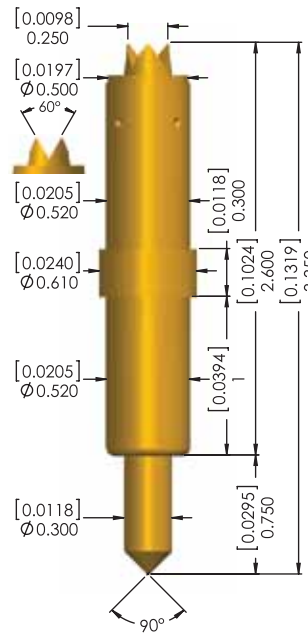
### Material

Top Plunger  
Pd alloy  
Barrel  
PhBz , Au plated  
Spring  
SWP , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.60mm  
Full travel  
0.80mm  
Spring force  
40g±20%@0.60mm  
Operating Temp.  
-15°C~125°C

## DE4-052EF23-02F0



### Material

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

### Mechanical Spec.

Recommended travel  
0.45mm  
Full travel  
0.65mm  
Spring force  
35g±20%@0.45mm  
Operating Temp.  
-15°C~125°C

### Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 41.8Ω  
Insertion loss -1dB@15.08GHz  
Return loss -20dB@3.29GHz  
Time delay 23.8psec  
Loop inductance 1nH  
Capacitance 0.57pF

### Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000

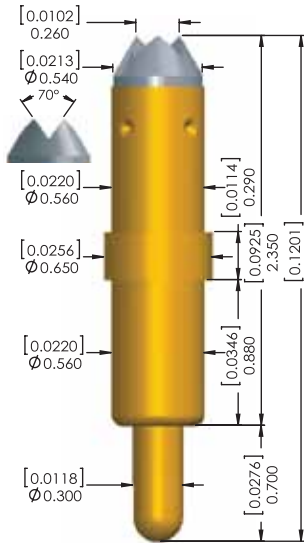


Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 41.5Ω  
Insertion loss -1dB>20GHz  
Return loss -20dB@3.45GHz  
Time delay 19.9 psec  
Loop inductance 0.83 nH  
Capacitance 0.48 pF

# Probe Specification

Unit:mm; [ ]:in

## PE4-056DF20-02F0



### Material

Top Plunger

Pd alloy

Barrel

Brass , Au plated

Spring

SWP , Au plated

Bottom plunger

BeCu , Au plated

### Mechanical Spec.

Recommended travel

0.50mm

Full travel

0.70mm

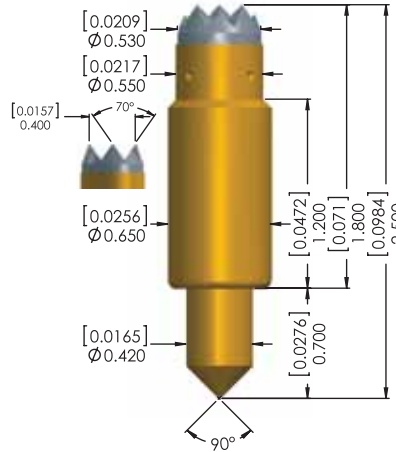
Spring force

35g±20%@0.50mm

Operating Temp.

-15°C~125°C

## PE4-065EW15-01A0



### Material

Top Plunger

Pd alloy

Barrel

PhBz , Au plated

Spring

SWP , Au plated

Bottom plunger

BeCu , Au plated

### Mechanical Spec.

Recommended travel

0.50mm

Full travel

0.70mm

Spring force

32g±20%@0.50mm

Operating Temp.

-15°C~125°C

### Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000



Current rating 1A continuous

Contact Resistance <75mΩ(AVG)

Characteristic impedance 32.68Ω

Insertion loss -1dB@17.48GHz

Return loss -20dB@ 1.93 GHz

Time delay 19.28 psec

Loop inductance 0.63nH

Capacitance 0.59pF

### Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000



Current rating 1A continuous

Contact Resistance <75mΩ(AVG)

Characteristic impedance 29 Ω

Insertion loss -1dB@10.3GHz

Return loss -20dB@1.79GHz

Time delay 16 psec

Loop inductance 0.47 nH

Capacitance 0.55 pF

Pitch 0.2

Pitch 0.3

Pitch 0.4

Pitch 0.5

Pitch 0.6

Pitch 0.65

Pitch 0.8

Pitch 1.0

Pitch 1.27

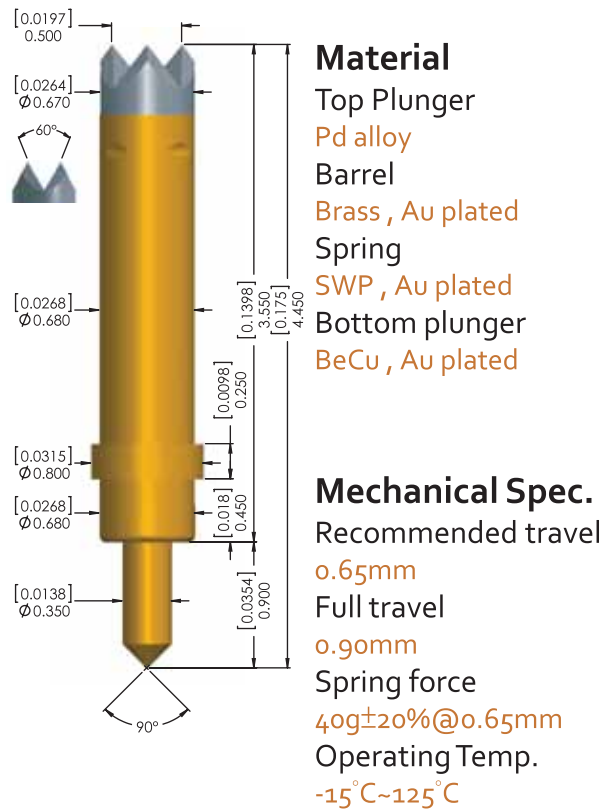
Pitch 1.27

25

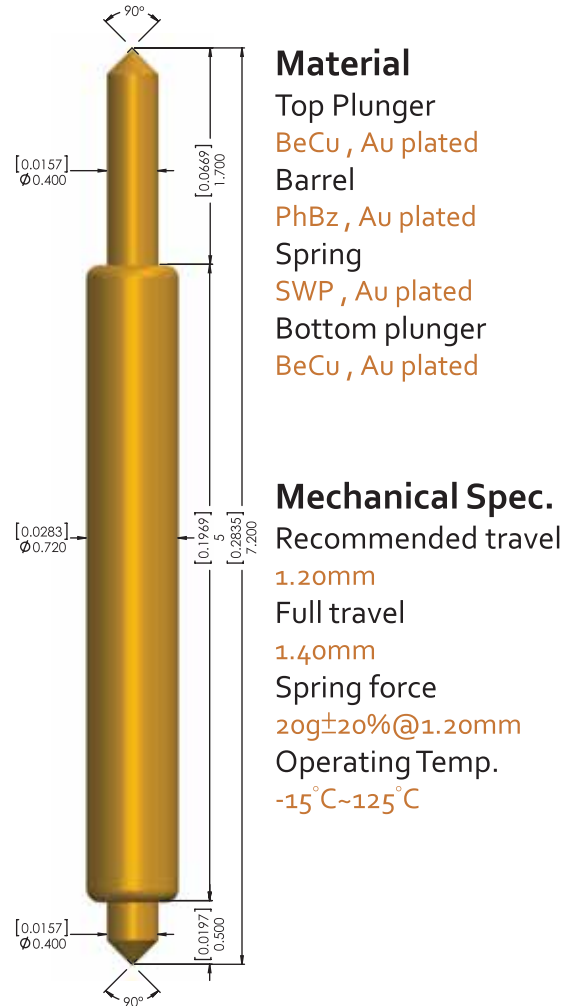
# Probe Specification

Unit:mm; [ ]:in

## PE4-068EP35-01F0



## DE1-072EE50-01A0



### Electrical Spec. GSG

Pitch: 1.0mm Socket Material: Peek 1000

Current rating 2A continuous  
 Contact Resistance <75mΩ(AVG)  
 Characteristic impedance 37.53 Ω  
 Insertion loss -1dB@11.91GHz  
 Return loss -20dB@2.19GHz  
 Time delay 26.65 psec  
 Loop inductance 1 nH  
 Capacitance 0.71 pF

### Electrical Spec. GSG

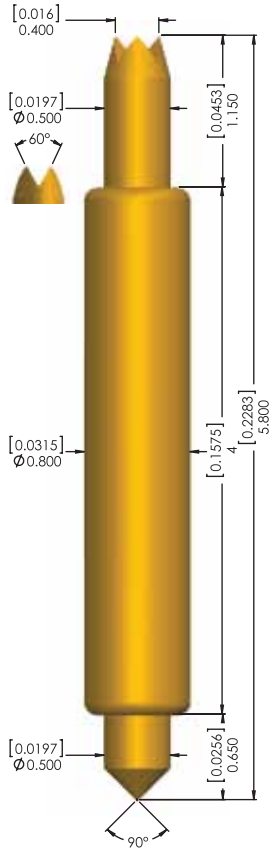
Pitch: 1.0mm Socket Material: Peek 1000

Current rating 1A continuous  
 Contact Resistance <175mΩ(AVG)  
 Characteristic impedance 40.7 Ω  
 Insertion loss -1dB@13.9GHz  
 Return loss -20dB@2.37GHz  
 Time delay 38.7 psec  
 Loop inductance 1.58 nH  
 Capacitance 0.95 pF

# Probe Specification

Unit:mm; [ ]:in

## DE1-080BF40-010



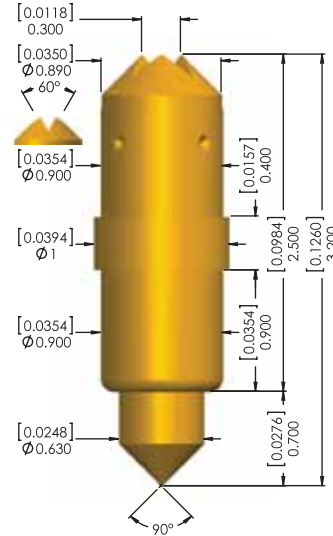
### Material

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

### Mechanical Spec.

Recommended travel  
0.70mm  
Full travel  
1.05mm  
Spring force  
30g±20%@0.70mm  
Operating Temp.  
-15°C~125°C

## DE4-090EF25-02F0



### Material

Top Plunger  
BeCu , Au plated  
Barrel  
Brass , Au plated  
Spring  
SUS , Au plated  
Bottom plunger  
BeCu , Au plated

### Mechanical Spec.

Recommended travel  
0.50mm  
Full travel  
0.70mm  
Spring force  
30g±20%@0.50mm  
Operating Temp.  
-55°C~150°C

### Electrical Spec.

Pitch: 1.0mm Socket Material: Peek 1000



Current rating 3A continuous  
Contact Resistance <175mΩ(AVG)  
Characteristic impedance 33.9Ω  
Insertion loss -1dB@12GHz  
Return loss -20dB@1.22GHz  
Time delay 33.6 psec  
Loop inductance 1.14nH  
Capacitance 0.99pF

### Electrical Spec.

Pitch: 1.27mm Socket Material: Peek 1000



Current rating 1A continuous  
Contact Resistance <75mΩ(AVG)  
Characteristic impedance 34.6Ω  
Insertion loss -1dB@17.27GHz  
Return loss -20dB@2.16GHz  
Time delay 20.4 psec  
Loop inductance 0.71 nH  
Capacitance 0.59 pF