

Burn In Test

The Burn-In test will expose the DUT (device under test) to harsh conditions: 150°C; relative humidity (RH): 85 rh; current rating: 1A continuous for 1000 hrs. In order to withstand conditions like that, C.C.P. modifies the plating material and core material. C.C.P. splits the socket into two parts: The standard part and the machining part. The standard part is manufactured by insert molding and holds the machining part which is customized according to the customers' IC design and made by CNC. The pins for the burn-in solution use a special material (WJ3) that shows an exceptional hardness and is able to withstand the demanding conditions posed by the Burn-In test.

Design Concept



Pogo Type Burn-in Socket

Burn in Socket	Specification
IC Size	<15x15 mm ²
Min. Pitch	0.3
Body Material	PES (Black)
Housing Material	Utem2300
Operating Temperature	-55°C~180°C

C.C.P. splits the socket into a standard part and a machining part. The standard part is processed by insert molding while the machining part is manufactured by CNC according to IC's size. This shortens the development time and reduces the mold tooling cost. C.C.P. can customize the sockets according to your needs.



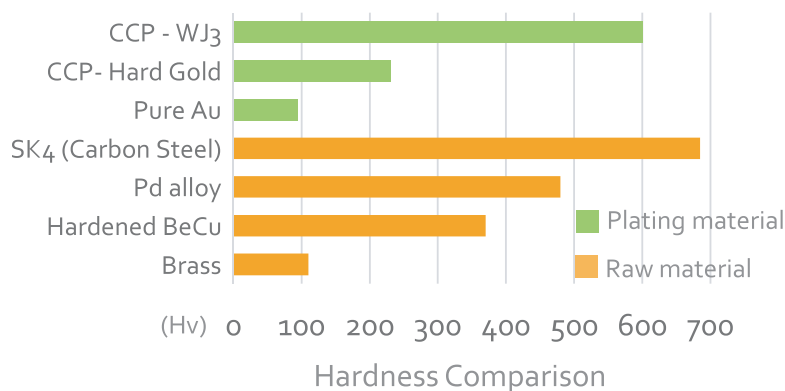
Standard Part



Customized part

Manufactured according to IC size

Plating / Raw Material

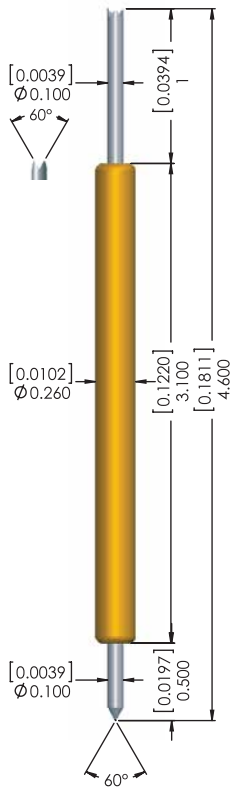


Commonly used in burn in test solution, WJ3 is a special plating material developed by C.C.P. and usually plated on the DUT side plunger. Besides high hardness, WJ3 is able to perform steadily in severe testing environments that reach 150°C for 1000 hours possibly even for 3000 hours.

Probe Specifications

Unit:mm; []:in

WE1-026EF31-01A0



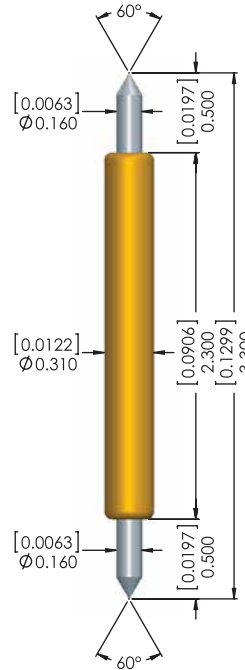
Material

Top Plunger
BeCu , WJ₃ plated
Barrel
PhBz , Au plated
Spring
SUS , Au plated
Bottom Plunger
BeCu , WJ₃ plated

Mechanical Spec.

Recommended Travel
0.50mm
Full Travel
0.80mm
Spring Force
20g±20%@0.50mm
Operating Temp.
-55°C~175°C

WE1-031BB23-01A0



Material

Top Plunger
BeCu , WJ₃ plated
Barrel
PhBz , Au plated
Spring
SUS , Au plated
Bottom Plunger
BeCu , WJ₃ plated

Mechanical Spec.

Recommended Travel
0.50mm
Full Travel
0.70mm
Spring Force
30g±20%@0.50mm
Operating Temp.
-55°C~175°C

Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current Rating 1A continuous
Contact Resistance <175mΩ(AVG)
Characteristic Impedance 57Ω
Insertion Loss -1dB>20GHz
Return Loss -20dB@8.38GHz
Time Delay 23.4 psec
Loop Inductance 1.34 nH
Capacitance 0.41 pF

Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000

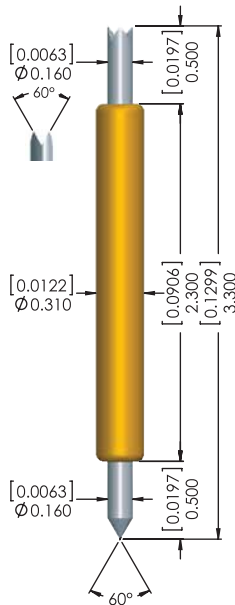


Current Rating 1.5A continuous
Contact Resistance <175mΩ(AVG)
Characteristic Impedance 40.8Ω
Insertion Loss -1dB>20GHz
Return Loss -20dB@ 5.3 GHz
Time Delay 15.9 psec
Loop Inductance 0.65 nH
Capacitance 0.39 pF

Probe Specifications

Unit:mm; []in

WE1-031BF23-01A0



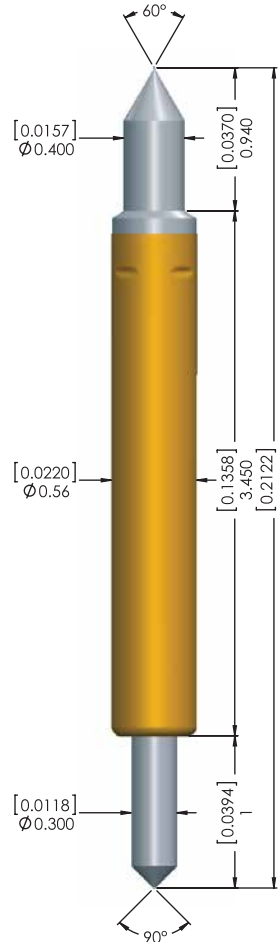
Material

Top Plunger
BeCu , WJ3 plated
Barrel
PhBz , Au plated
Spring
SUS , Au plated
Bottom Plunger
BeCu , WJ3 plated

Mechanical Spec.

Recommended Travel
0.50mm
Full Travel
0.70mm
Spring Force
30g±20%@0.50mm
Operating Temp.
-55°C~175°C

WE3-056BE34-02A0



Material

Top Plunger
BeCu , WJ3 plated
Barrel
Brass , Au plated
Spring
SUS , Au plated
Bottom Plunger
BeCu , WJ3 plated

Mechanical Spec.

Recommended Travel
0.67mm
Full Travel
0.90mm
Spring Force
35g±20%@0.67mm
Operating Temp.
-55°C~175°C

Electrical Spec.

Pitch: 0.4mm Socket Material: Peek 1000



Current Rating 1.5A continuous
Contact Resistance <175mΩ(AVG)
Characteristic Impedance 33.72Ω
Insertion Loss -1dB@12.51GHz
Return Loss -20dB@2.49GHz
Time Delay 17.2 psec
Loop Inductance 0.58 nH
Capacitance 0.51 pF

Electrical Spec.

Pitch: 0.8mm Socket Material: Peek 1000



Current Rating 5A continuous
Contact Resistance <75mΩ(AVG)
Characteristic Impedance 32.1Ω
Insertion Loss -1dB@7 GHz
Return Loss -20dB@1.19 GHz
Time Delay 29.5 psec
Loop Inductance 0.95nH
Capacitance 0.92 pF