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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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preci-dip

## PGA / BGA / PLCC SOCKETS

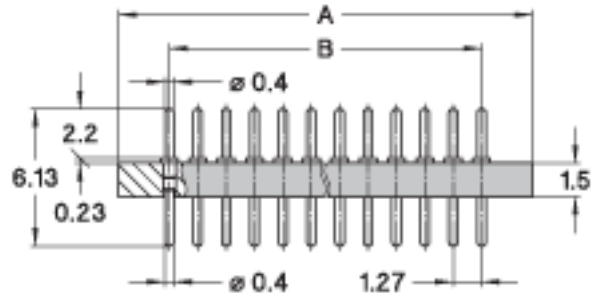
**SERIES**  
**550**

**550-10-NNNMXX-XXX152**

BGA

1.27 mm grid, Interconnect pin solder tail

Interconnect pin, through hole solder tail



### TECHNICAL SPECS.:

<b>Insulator</b>	Glass-epoxy laminate FR4
<b>Flammability</b>	UL 94V-O
<b>Pin</b>	Brass CuZn36Pb3 (C36000)
<b>Mechanical life</b>	Min. 100 cycles
<b>Rated current</b>	1 A
<b>Contact resistance</b>	Max. 10 m
<b>Dielectric strength</b>	Min. 500 V RMS

### ORDERING INFORMATION:

PP Plating code	Termination	Connecting pin
10	Gold 0.25 $\mu$ m	Gold 0.25 $\mu$ m

Replace NNN with the number of poles and XX-XXX with body size and layout numbers as indicated here. For example a 20x20 pin configuration with 256 contacts as shown here becomes 550-10-256M20-001152.

# TECHNICAL ASSISTANCE

## GENERAL SPECIFICATIONS:

The values listed below are general specs applying for PRECI-DIP PGA, BGA and PLCC sockets. Please see individual catalog page for additional and product specific technical data.

Operating temperature range	-55 ... +125 °C
Climatic category (IEC)	55/125/21
Operating humidity range	annual mean 75 %
Max working voltage	100 VRMS/150 VDC (2.54 mm grid)

PRECI-DIP sockets are recognized by Underwriters Laboratories Inc. and listed under "Connectors for Use in Data, Signal, Control and Power Applications", File Nr. E174442

## MECHANICAL CHARACTERISTICS:

Clip retention	Min. 40 N (no displacement under axial force applied)
Contact (sleeve / clip) retention	Min. 3.3 N acc. to MIL-DTL-83734, pt 4.6.4.2

## ELECTRICAL CHARACTERISTICS:

Insulation resistance between any two adjacent contacts	Min. 10'000 M at 500 V AC
Capacitance between any two adjacent contacts	Max. 1 pF (PLCC max. 2 pF)
Self inductance per contact	Max. 2 nH

## ENVIRONMENTAL CHARACTERISTICS:

The sockets withstand the following environmental tests without mechanical and electrical defects:

- Dry heat steady state IEC 60512-11-9.11i / 60068-2-2.Bb: 125 °C, 16h
- Damp heat cyclic IEC 60512-11-12.11m / 60068-2-30.Db: 25/55 °C, 90 – 100 %rH, 1 cycle of 24 h
- Cold steady state IEC 60512-11-10.11j / 60068-2-1.A: -55 °C, 2 h
- Thermal shock IEC 60512-11-4.11d / 60068-2-14.Na: -55/125 °C, 5 cycles 30 min
- Sinusoidal vibrations IEC 60512-6-4.6d / 60068-2-6.Fc: 10 to 500 Hz, 10 g, 1 octave/min, 10 cycles for each axis
- Shock IEC 60512-6-3.6c / 60068-2-27.Ea: 50 g, 11 ms, 3 shocks in three axis

During the above two tests no contact interruption >50 ns does appear.

- Solderability J-STD-002A, Test A, 245°C, 5 s solder alloy SnAg3.8Cu0.7
- Resistance to soldering heat J-STD-0020C, 260°C, 20 s
- Moisture sensitivity J-STD-020C level 1
- Resistance to corrosion :
  - 1) Salt spray test IEC 60068-2-11.Ka: 48 h
  - 2) Sulfur dioxide (SO<sub>2</sub>) test IEC 60068-2-42 Kc: 96 h at 25 ppm SO<sub>2</sub>, 25 °C, 75 %rH
  - 3) Hydrogen sulfide (H<sub>2</sub>S) test IEC 60068-2-43 Kd: 96 h at 12 ppm H<sub>2</sub>S, 25 °C, 75 %rH

## SOLDERLESS COMPLIANT PRESS-FIT CHARACTERISTICS:

### PRESS-FIT CHARACTERISTICS MEASURED ACC. TO IEC 60352-5

- Press-in force: 90 N max. (at min. hole dia.) / 65 N typ.
- Push-out force: 30 N min. (at max. hole dia.) / 50 N typ.
- Push-out 3rd cycle: 20 N min. (at max. hole dia.)

### PCB HOLE DIMENSIONS

- 2.54 mm grid: Finished hole Ø: 1 + 0.09/-0.06 mm | Drilled hole Ø: 1.15 ± 0.02 mm

- Interstitial grid: Finished hole  $\varnothing$ :  $0.7 + 0.09/-0.06$  mm | Drilled hole  $\varnothing$ :  $0.8 \pm 0.02$  mm

#### **PCB HOLE PLATING**

- PCB surface finish: Hole plating
- Tin: 5-15  $\mu\text{m}$  tin over min. 25  $\mu\text{m}$  copper
- Copper: min. 25  $\mu\text{m}$  copper
- Gold over nickel: 0.05-0.2  $\mu\text{m}$  gold over 2.5-5  $\mu\text{m}$  nickel over min. 25  $\mu\text{m}$  copper