

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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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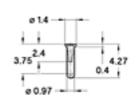


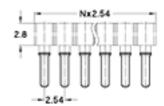


## **PCB CONNECTORS**

SERIES 7<u>14</u> **714-PP-1NN-31-018101**Single row
2.54 mm, Carrier

"Zero profile" socket connectors Single socket contacts for solder mount into PCB, supplied on disposable carriers.





## **TECHNICAL SPECS.:**

Insulator Black glass filled polyester PCT-GF30-FR

Flammability UL 94V-O

Sleeve Brass CuZn36Pb3 (C36000)

Contact Clip (3 finger): Beryllium copper (C17200)

**Mating pin Ø** 0.40 to 0.52 mm

Insertion force 1 N typ.

Withdrawal force 0.4 N typ. (polished steel gauge Ø 0.43 mm)

Mechanical life Min. 500 cycles

Rated current 3 A

Contact resistance Max. 10 m

Dielectric strength Min. 1000 V RMS

### **ORDERING INFORMATION:**

PP Plating code Sleeve Clip

87 Tin Gold flash

83 Tin Gold 0.75 μm

NN number of poles. Replace NN with the requested number of poles, e.g. 714-83-1NN-41-001101 for a single row version with 8 pins becomes 714-83-108-41-001101.

## TECHNICAL ASSISTANCE

#### **GENERAL SPECIFICATIONS:**

The values listed below are general specs applying for PRECI-DIP socket and pin connectors. 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

#### Air and creepage distances between any two adjacent contacts:

SERIES	3xx/4xx/7xx	80x	83x	85x	86x
mm	0.7	0.85 / 0.7	0.5	0.4 / 0.5	0.5

#### **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 (SO2) test IEC 60068-2-42 Kc: 96 h at 25 ppm SO2, 25 °C, 75 %rH
- 3) Hydrogen sulfide (H2S) test IEC 60068-2-43 Kd: 96 h at 12 ppm H2S, 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 mm grid: Finished hole Ø: 0.7 + 0.09/-0.06 mm | Drilled hole Ø: 0.8  $\pm$  0.02 mm
- 2.54 mm grid: Finished hole Ø: 1 + 0.09/-0.06 mm | Drilled hole Ø: 1.15  $\pm$  0.02 mm

#### **PCB HOLE PLATING**

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