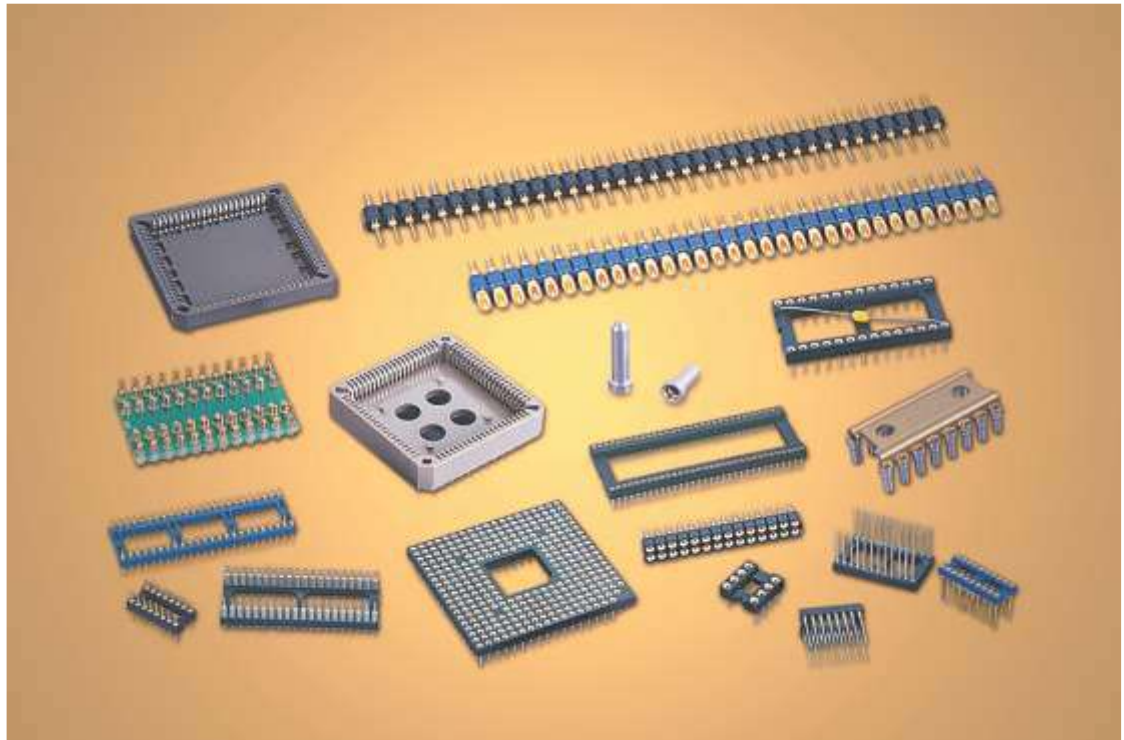


MACHINED CONTACT CONNECTORS



INTRODUCTION

INNER CLIP

The inner clip consists of 4 Leaf Springs, stamped and rounded to take strip/round male contacts at the bottom edge, facilitating lower insertion force, but high withdrawal force. This is an essential requirement for high density contact connectors. The contact engagement in this design is a sliding contact action, while disengagement is a recoiling action on male contacts. Contacts with lower insertion force can be made by using 6 leaf springs mostly for PGA Type Sockets.

OUTER SLEEVE

The outer sleeve is a machined enclosure, open at one end for insertion of Leaf Spring & the other end closed. The sleeve can be produced with different types of terminations. The closed end on termination side helps in elimination of solder flux wicking action during soldering process. The Leaf Springs are therefore protected against the damaging influences of the cleaning flux like corrosion, contact contamination & open contacts (created by solidification of flux on the mating areas which becomes an Insulating medium).

PLATING & FINISH

Inner Clip & Outer Sleeve can be separately plated to match different requirements of users. Popular plating of leaf spring is gold while that of the sleeve is tin. Tin plated leaf spring & sleeve can also be offered as a cost saving option, depending on the user's requirement.

INSULATORS

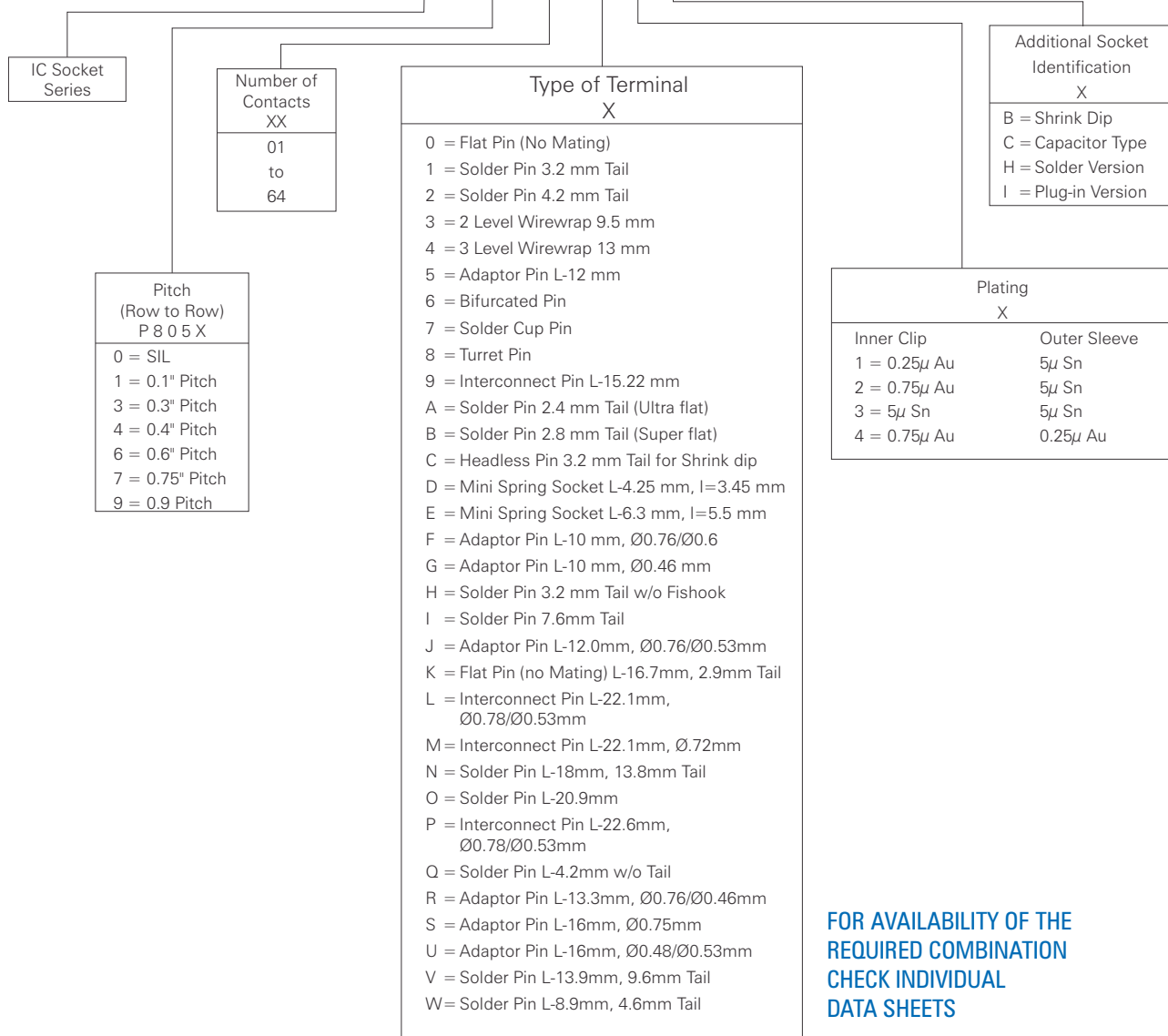
Sockets can be moulded using the latest electronic grade insulating materials like Polyester, Polyphenylenedene Sulphide etc., meeting flammability grades 94V-0. For certain applications Glass Epoxy Sheets are also recommended as insulators, where interconnects between contacts has to be laid inside the layers eg. in Conversion Sockets.

ORDERING INFORMATION

To enable our customers to order our products easily and without error, we have designed this ordering code with great care, to help you to easily arrive at the code without any difficulty.

Supposing you want to order a IC Socket, 0.6" Pitch, 28 Pin, 3.2 mm tail length, Inner contact gold plated 0.25 μ , Outer sleeve tin plated 5 μ , Capacitor type then the Part Number will be

P80562811C
P805XXXX



TECHNICAL SPECIFICATIONS FOR IC SOCKETS

| Connector Parts | Materials & Finishes |
|---------------------------|--|
| Insulator Body | Glass filled polyester, self extinguishing, rated UL94 V-0 |
| Outer Sleeve | Screw machined brass, plated 0.25 micron gold or 5 micron Tin - lead over nickel plate |
| Inner Clip | Beryllium - Copper, heat - treated, gold or Tin plated |
| Pins (Without Inner Clip) | Screw machined brass or phosphor bronze Plated 0.25 microns gold or 5 microns Tin over nickel plate |

Mechanical Properties

| | | |
|------------------|---|--|
| Mechanical life | : | 50 cycles |
| Insertion force | : | Average insertion force with steel pin dia 0.41 = < 2 N (0.2 Kg) |
| Extraction force | : | Average withdrawal force with steel pin dia 0.41 = > 0.5 N (0.05 Kg) |

Type of Clip

| | | |
|--------------------------|---|--------|
| 4 Finger stamped contact | | |
| Minimum insertion depth | : | 2.6 mm |
| Maximum insertion depth | : | 3.6 mm |

Electrical Properties

| | | |
|-----------------------|---|--|
| Rated current | : | 1 A |
| Rated voltage | : | 100 V AC |
| Voltage proof | : | 600 V AC |
| Contact Resistance | : | ≤20 m ohms. |
| Insulation resistance | : | ≥5000 M ohms @ 500 V DC |
| Capacitance | : | 0.3Pf Max. (1Pf for shrink dip series) |

Environmental Properties

| | | |
|------------------------------|---|--------------------|
| Operating temperature range | : | -65°C, +125°C |
| Resistance to soldering heat | : | +260°C, 10 seconds |
| Environment category | : | 65 / 125 / 21 |

PIN LAYOUT

| | | | |
|-----------------------------|-----------------------------------|------------------------------------|------------------------------|
| | | | |
| <p>0 = Flat Pin</p> | <p>1 = Solder Pin 3.20mm Tail</p> | <p>2 = Solder Pin 4.20mm Tail</p> | <p>3 = 2 Level W/W 9.5mm</p> |
| | | | |
| <p>4 = 3 Level W/W 13mm</p> | <p>5 = Adaptor Pin</p> | <p>6 = Bifurcated Pin</p> | <p>7 = Solder Cup Pin</p> |
| | | | |
| <p>8 = Turret Pin</p> | <p>9 = Interconnect Pin</p> | <p>C = Headless Pin 3.2mm Tail</p> | |

PIN LAYOUT - PGA SOCKETS

| | | | |
|-------------------------------|-------------------------------|-------------------------|--|
| | | | |
| <p>D = 3.2mm Tail PGA Pin</p> | <p>E = 4.2mm Tail PGA Pin</p> | <p>F = 13mm PGA W/W</p> | |

DUAL IN - LINE SOCKETS STANDARD SOLDER TAIL

OPEN FRAME

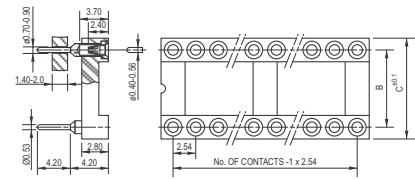
Features

- End to end, side to side stackable
- No solder vicking
- Stands 4.2mm high on PCB
- Lead spacing 2.54mm
- Takes IC pins 0.43 dia / 0.25 x 0.45 flat construction
- Pin insertion depth, 3.2mm min.



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pins | X Plating | |
|---------------------------------------|---|---------------------------------|--|----------------------------------|----------------------------------|
| | | | | Inner Clip | Outer Sleeve |
| P805 | 1 = 0.1" Pitch | 01 | 1 = PC Pin 3.2mm | 1 = 0.25μ Au | 5μ Sn |
| | 3 = 0.3" Pitch | to | 2 = PC Pin 4.2mm | 2 = 0.75μ Au | 5μ Sn |
| | 4 = 0.4" Pitch | 64 | | 3 = 5μ Sn | 5μ Sn |
| | 6 = 0.6" Pitch | | | 4 = 0.75μ Au | 0.25μ Au |
| | 9 = 0.9" Pitch | | | | |
| B: 2.54 mm (0.1") C: 5.08 mm | | B: 7.62 mm (0.3") C: 10.1 mm | B: 10.16 mm (0.4") C: 12.6 mm | B: 15.24 mm (0.6") C: 17.7 mm | B: 22.86 mm (0.9") C: 25.3 mm |
| P8051-XX-XX ↓ 02 to 80 contacts | P8053 - 04 - XX P8053 - 06 - XX P8053 - 08 - XX P8053 - 10 - XX P8053 - 14 - XX P8053 - 16 - XX P8053 - 18 - XX P8053 - 20 - XX P8053 - 22 - XX P8053 - 24 - XX P8053 - 28 - XX | P8054 - 22 - XX | P8056 - 24 - XX P8056 - 28 - XX P8056 - 32 - XX P8056 - 40 - XX P8056 - 42 - XX P8056 - 48 - XX | P8059 - 64 - XX | |



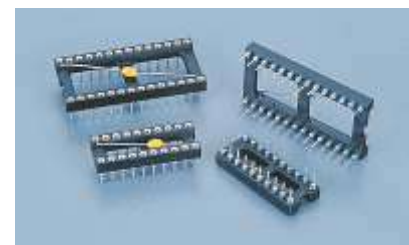
B: Pitch Row to Row
C: Total Socket Width

DUAL IN - LINE SOCKETS WITH INTEGRATED DECOUPLING CAPACITOR

OPEN FRAME

Features

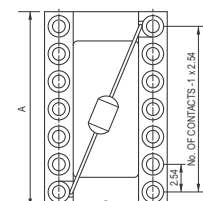
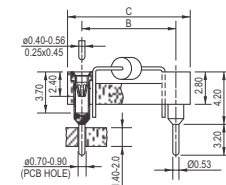
- End to end, side to side stackable
- No solder vicking
- Stands 4.2mm high on PCB
- Lead spacing 2.54 mm
- Output pins integrated with decoupling capacitor
- Open insulator frame



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pins | X Plating | | C: Capacitor |
|--|---------------------------|--|----------------------------------|----------------------------------|--------------|--------------|
| | | | | Inner Clip | Outer Sleeve | |
| P805 | 3 = 0.3" Pitch | 01 | 1 = PC Pin 3.2 mm | 1 = 0.25μ Au | 5μ Sn | C: Capacitor |
| | 4 = 0.4" Pitch | to | 2 = PC Pin 4.2 mm | 2 = 0.75μ Au | 5μ Sn | 0.1 μ F 50 V |
| | 6 = 0.6" Pitch | 64 | | 3 = 5μ Sn | 5μ Sn | |
| | 9 = 0.9" Pitch | | | 4 = 0.75μ Au | 0.25 μ Au | |
| | | | | | | |
| B: 7.62 mm (0.3") C: 10.1 mm | | B: 10.16 mm (0.4") C: 12.6 mm | B: 15.24 mm (0.6") C: 17.7 mm | B: 22.86 mm (0.9") C: 25.3 mm | | |
| P8053 - 14 - XXC P8053 - 16 - XXC P8053 - 18 - XXC P8053 - 20 - XXC P8053 - 24 - XXC P8053 - 28 - XXC | P8054 - 22 - XXC | P8056 - 24 - XXC P8056 - 28 - XXC P8056 - 40 - XXC | Not available | | | |

B: Pitch Row to Row
C: Total Socket Width



DUAL IN - LINE SOCKETS WIRE WRAP 2, 3 LEVEL

OPEN FRAME

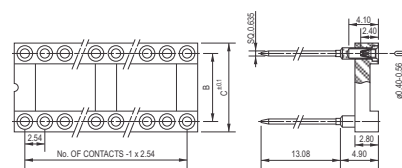
Features

- End to end, side to side stackable
- No solder vicking
- Lead spacing 2.54 mm
- 2 & 3 level Wirewrap
- Stands 4.9 mm on PCB



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pins | X Plating | |
|--|--|----------------------------------|--|---|---|
| | | | | Inner Clip | Outer Sleeve |
| P805 | 1 = 0.1" Pitch 3 = 0.3" Pitch 4 = 0.4" Pitch 6 = 0.6" Pitch 9 = 0.9" Pitch | 01 to 64 | 3 = 2 level W/W 9.52 mm 4 = 3 level W/W 1.3 mm | 1 = 0.25 μ Au 2 = 0.75 μ Au 3 = 5 μ Sn 4 = 0.75 μ Au | 5 μ Sn 5 μ Sn 5 μ Sn 0.25 μ Au |
| B: 2.54 mm (0.1") C: 5.08 mm | B: 7.62 mm (0.3") C: 10.1 mm | B: 10.16 mm (0.4") C: 12.6 mm | B: 15.24 mm (0.6") C: 17.7 mm | B: 22.86 mm (0.9") C: 25.3 mm | |
| P8051- XX -XX ↓ 02 to 80 Contacts | P8053 - 04 - XX P8053 - 06 - XX P8053 - 08 - XX P8053 - 14 - XX P8053 - 16 - XX P8053 - 18 - XX P8053 - 20 - XX P8053 - 22 - XX P8053 - 24 - XX P8053 - 28 - XX | P8054 - 22 - XX | P8056 - 24 - XX P8056 - 28 - XX P8056 - 32 - XX P8056 - 40 - XX P8056 - 42 - XX P8056 - 48 - XX | P8059 - 64 - XX | |

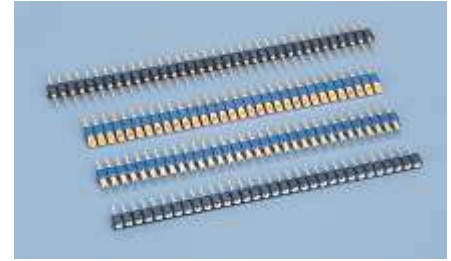


B: Pitch Row to Row
C: Total Socket Width

SINGLE IN - LINE SOCKETS

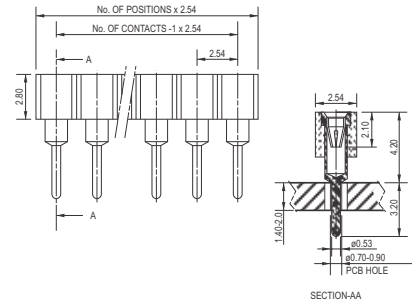
Features

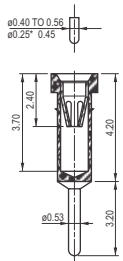
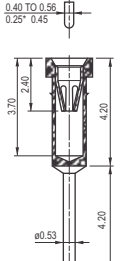
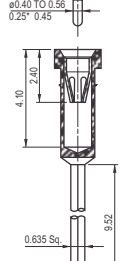
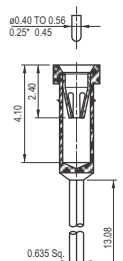
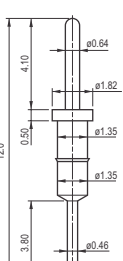
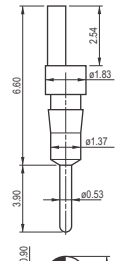
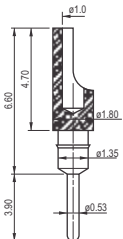
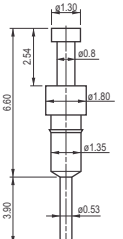
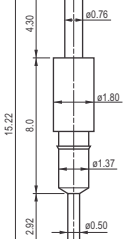
- Can be cut easily into required sizes
- Lead spacing 2.54mm
- Easy to stack
- Available in specific length



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pins | X Plating Inner Clip | X Plating Outer Sleeve |
|-----------------------------|---------------------------|-----------------------------|---|--|---|
| P805 | 0 = SIL | 01 to 64 | 1 = Solder Pin 3.2 mm tail 2 = Solder Pin 4.2 mm tail 3 = 2 Level Wirewrap 4 = 3 Level Wirewrap 5 = Adaptor Pin 6 = Bifurcated Pin 7 = Solder Cup Pin 8 = Turret Pin 9 = Interconnect Pin For other type of pins refer pg-51 | 1 = 0.25 μ Au 2 = 0.75 μ Au 3 = 5 μ Sn 4 = 0.75 μ Au P - For 5 to 9 type of pin 1 = 5 μ Sn 4 = 0.25 μ Au | 5 μ Sn 5 μ Sn 5 μ Sn 0.25 μ Au |



| | | |
|---|---|--|
|  |  |  |
| 1 = Solder Pin 3.20mm Tail | 2 = Solder Pin 4.20mm Tail | 3 = 2 Level W/W 9.5mm |
|  |  |  |
| 4 = 3 Level W/W 13mm | 5 = Adaptor Pin | 6 = Bifurcated Pin |
|  |  |  |
| 7 = Solder Cup Pin | 8 = Turret Pin | 9 = Interconnect Pin |

DUAL IN - LINE ADAPTORS STANDARD SOLDER TAIL

OPEN FRAME

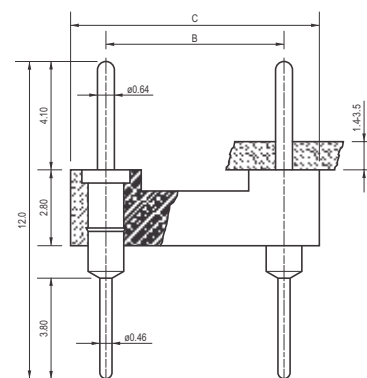
Features

- Straight solderable sockets with 0.46 mm
- For piggy back constructions
- Lead spacing 2.54 mm
- Also available with different pin lengths, on request



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pins | X Pin Plating |
|---------------------------------------|--|----------------------------------|---|----------------------------------|
| P805 | 1 = 0.1" Pitch 3 = 0.3" Pitch 4 = 0.4" Pitch 6 = 0.6" Pitch 9 = 0.9" Pitch | 01 to 64 | 5 = Adaptor Pin 6 = Bifurcated Pin 7 = Solder Cup Pin 8 = Turret Pin 9 = Interconnect Pin For other type of terminals, refer pg-51 | 1 = 5 μ Sn 4 = 0.25 μ Au |
| B: 2.54 mm (0.1") C: 5.08 mm | B: 7.62 mm (0.3") C: 10.1 mm | B: 10.16 mm (0.4") C: 12.6 mm | B: 15.24 mm (0.6") C: 17.7 mm | B: 22.86 mm (0.9") C: 25.3 mm |
| P8051-XX-XX ↓ 02 to 80 Contacts | P8053 - 04 - XX P8053 - 06 - XX P8053 - 08 - XX P8053 - 10 - XX P8053 - 14 - XX P8053 - 16 - XX P8053 - 18 - XX P8053 - 20 - XX P8053 - 22 - XX P8053 - 28 - XX | P8054 - 22 - XX | P8056 - 24 - XX P8056 - 28 - XX P8056 - 32 - XX P8056 - 40 - XX P8056 - 42 - XX P8056 - 48 - XX | P8059 - 64 - XX |



B: Pitch Row to Row
C: Total Socket Width

SHRINK DIP SOCKETS AND STRIPS SOLDER TAIL

OPEN FRAME

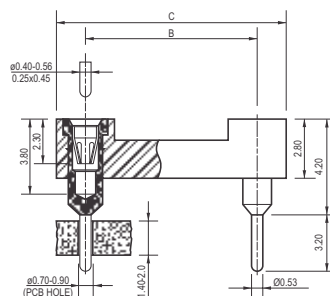
Features

- End to end, side to side, stackable
- No solder vicking
- Stands 4.2 mm high on PCB
- Open Frame
- Lead spacing 0.07" (1.778 mm)



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pins | X Plating | | |
|---------------------------------------|--|--|------------------------------------|--|------------------|-------------------|
| | | | | Inner Clip | Outer Sleeve | |
| P805 | 3 = 0.3" Pitch 4 = 0.4" Pitch 6 = 0.6" Pitch 7 = 0.75" Pitch | 01 to 64 | C = PC Pin 3.2 mm Tail | 1 = 0.25 μ Au 2 = 0.75 μ Au 3 = 5 μ Sn | 5 μ Sn 5 μ Sn | B : Shrink Dip |
| B: 7.62 mm (0.3") C: 10.1 mm | B: 10.16 mm (0.4") C: 12.6 mm | B: 15.24 mm (0.6") C: 17.7 mm | B: 19.05 mm (0.75") C: 21.59 mm | | | |
| P8053 - 16 - XXB | P8054 - 28 - XXB P8054 - 30 - XXB P8054 - 32 - XXB P8054 - 48 - XXB | P8056 - 28 - XXB P8056 - 40 - XXB P8056 - 42 - XXB P8056 - 48 - XXB P8056 - 52 - XXB P8056 - 64 - XXB P8056 - 68 - XXB | P8057 - 64 - XXB | | | |
| SINGLE ROW STRIPS P8050 - 21 - XXB | | | | | | |



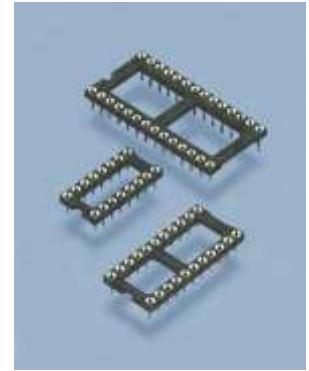
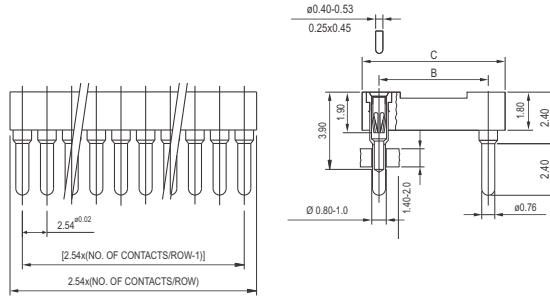
B: Pitch Row to Row
C: Total Socket Width

DUAL IN-LINE SOCKETS ULTRA FLAT

OPEN FRAME

Features

- Uses Ultraflat, open frame socket body
- 4 finger short clip
- Contact point at 1.9mm
- Ultraflat profile only
- Lead spacing 2.54mm
- Stands 2.4mm on PCB
- Hole drilled into solder tail to allow proper IC insertion
- Fits standard PC board holes



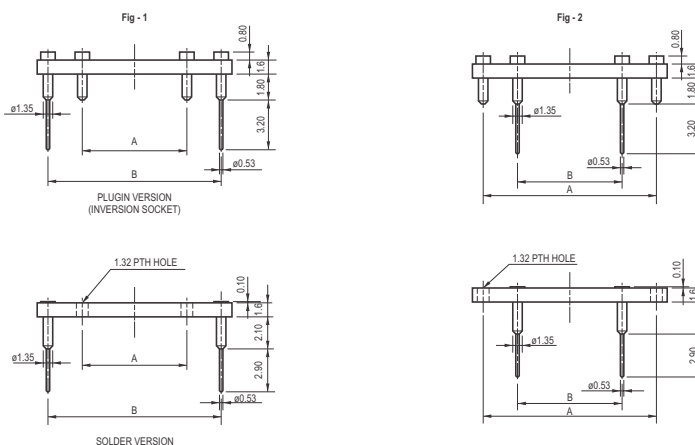
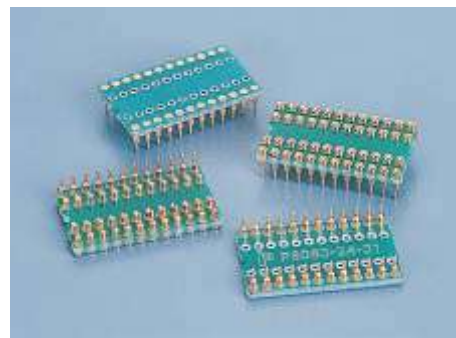
ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | XX Number of Contacts | X Type of Pin | X Inner Clip Plating | X outer sleeve Plating | D=Ultra Pin |
|--|--|-----------------------------|--|---|--|-------------|
| P805 | 3=0.3" Pitch 4=0.4" Pitch 6=0.6" Pitch | 01 to 64 | A-Solder Pin 2.4mm Tail | 1=0.25μ Au 2=0.75μ Au 3=5μ Sn 4=0.75μ Au | 5μ Sn 5μ Sn 5μ Sn 5μ Sn | |
| B: 7.62mm (0.3") C: 10.1mm | | | B = 10.16mm (0.4") C = 12.6mm | | B = 15.25mm (0.6") C = 17.7mm | |
| P8053-04-XXD P8053-06-XXD P8053-08-XXD P8053-10-XXD P8053-14-XXD P8053-16-XXD P8053-18-XXD P8053-20-XXD P8053-22-XXD P8053-24-XXD P8053-28-XXD | | | P8054-22-XXD P8054-24-XXD P8054-28-XXD P8054-32-XXD | | P8056-24-XXD P8056-28-XXD P8056-32-XXD P8056-36-XXD P8056-40-XXD P8056-42-XXD P8056-48-XXD P8056-50-XXD P8056-52-XXD | |

CONVERSION SOCKETS

Features

- Easy to stack
- Available to specific design
- Please specify dimensions A, B, C, D
- Lead spacing 2.54 mm
- IC can be Plug-in or Soldered
- Glass epoxy insulators
- Converts 1. Lower row spacing DIL IC / s to higher row PC board.
2. Higher row spacing DIL IC / s to lower row PC board.

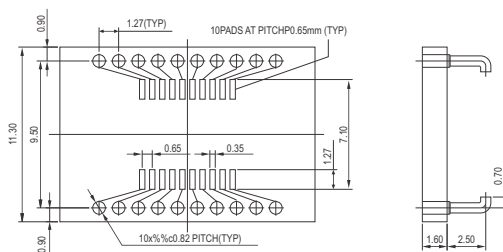


ORDERING INFORMATION

| P805 Conversion Socket Series | X Row Conversion From B to A & A to B | XX Number of Contacts | X Type of Pins | X Plating | | X |
|--|---|-----------------------------|--|-----------------------|--------------|---|
| | | | | Inner Clip | Outer Sleeve | |
| P805 Fig 2 | 0.3" to 0.6" = A | 04 to 64 | Ø 0 = Flat Pin (No mating) 1 = Solder Pin 3.2 mm Tail | 1 = 0.25 µ Au | 5 µ Sn | H = Solder Version I = Plug-in Version |
| | 0.4" to 0.6" = B | | | 2 = 0.75 µ Au | 5 µ Sn | |
| | 0.3" to 0.9" = C | | | 3 = 5 µ Sn | 5 µ Sn | |
| Fig 1 | 0.6" to 0.3" = D | | | 4 = 0.75 µ Au | 0.25 µ Au | |
| | 0.6" to 0.4" = E | | | Ø - For 0 type of pin | | |
| | 0.9" to 0.3" = F | | | 1 = 5 µ Sn | | |
| | 0.3" to 0.3" = G | | | 4 = 0.25 µ Au | | |

SOJ to SOWIC Adaptor

P805K-20-54S



DUAL IN - LINE SOCKETS METAL CARRIER

Specification

Same as IC Sockets

Material & Finish

Body : Brass
Outer Sleeve : Brass, Tin-Lead Plated
Inner Clip : Beryllium Copper, Gold-Plated

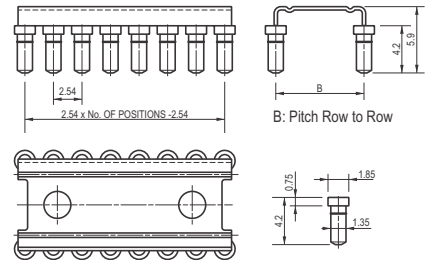
Features

- Excellent air-cooling of IC's
- Very low profile. Board can be drilled so that the contacts can be Inserted down to the shoulder leaving max. profile above board of 0.78mm
- Higher packaging density
- No flux intrusion after soldering



ORDERING INFORMATION

| P805 IC Socket Series | X Row Pitch Spacing | M Metal carrier | XX Number of Contacts | X Type of Pins | X Plating Inner Clip Outer Sleeve |
|-----------------------------|--|-----------------------|--|--|---|
| P805 | 3 = 0.3" Pitch 6 = 0.6" Pitch 9 = 0.9" Pitch | Metal carrier | 01 to 64 | 1 = PC pin 3.2mm 2 = PC pin 4.2mm D= Mini Spring Skt, L- 4.25mm, l=3.45mm E= Mini Spring Skt, L- 6.3mm, l=5.5mm Q = Solder pin w/o tail (L-4.2mm) | 1 = 0.25 μ Au 5 μ Sn 3 = 5 μ Sn 5 μ Sn |
| B: 7.62mm (0.3") | | B: 15.24 mm (0.6") | | B: 22.86 mm (0.9")m | |
| P8053 - 06 - XX | | P8056 - 24 - XX | P8059 - 64 - XX | | |
| P8053 - 08 - XX | | P8056 - 28 - XX | | | |
| P8053 - 14 - XX | | P8056 - 40 - XX | | | |
| P8053 - 16 - XX | | | | | |
| P8053 - 18 - XX | | | | | |
| P8053 - 20 - XX | | | Note: For further details, check with factory. | | |



MINI SPRING SOCKETS

P8040 Series

Specification

Same as IC Sockets

Material & Finish

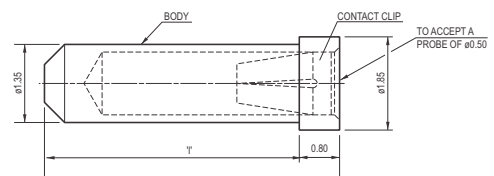
Outer Sleeve : Brass, Tin-Lead Plated
Inner Clip : Beryllium Copper, Gold Plated

Features

- ! Accepts mating pins of size $\varnothing 0.50 \pm 0.05$ mm
- ! Sockets are solder mount types
- ! Available in two lengths
- ! Mounting Hole Dia is $\varnothing 1.35 + 0/-0.02$ mm



| Finish | Part Number | |
|------------|---------------|---------------|
| | l = 3.45mm | l = 5.50mm |
| Tin Plated | P8040-19-32-0 | P8040-19-32-L |



TECHNICAL SPECIFICATIONS FOR PGA SOCKETS

| Connector Parts | Materials & Finishes |
|---------------------------|--|
| Insulator Body | Glass filled thermoplastic polyester, self extinguishing, rated UL94 V-0 or Glass Epoxy Laminate |
| Outer Sleeve | Screw machined brass, gold or Tin plated |
| Inner Clip | Beryllium - Copper, heat - treated, gold or Tin plated |
| Pins (Without Inner Clip) | Screw machined brass plated 0.25 microns gold or 5 microns tin - lead over nickel plate |

Mechanical Properties

| | | |
|------------------|---|--|
| Mechanical life | : | 50 Cycles (min) |
| Insertion force | : | Average insertion force with steel dia 0.41 = < 1 N (0.1 Kg) |
| Extraction force | : | Average withdrawal force with steel pin dia 0.41 = > 0.15 N (0.015 Kg) |

Type of Clip

| | | |
|--------------------------|---|--------|
| 6 Finger stamped contact | | |
| Minimum insertion depth | : | 2.6 mm |
| Maximum insertion depth | : | 3.6 mm |

Electrical Properties

| | | |
|-----------------------|---|------------------------|
| Rated current | : | 1 A |
| Rated voltage | : | 100 V AC |
| Voltage proof | : | 600 V AC |
| Contact resistance | : | ≤20 m ohms |
| Insulation resistance | : | ≥5000 M ohms @ 500 VDC |

Environmental Properties

| | | |
|------------------------------|---|---------------------|
| Operating temperature range | : | -65° C, +125° C |
| Resistance to soldering heat | : | +260° C, 10 seconds |
| Environment category | : | 65 / 125 / 21 |

PIN GRID ARRAY SOCKETS

SERIES PGA

Dimension with n_1 = number of contacts in one line ($5 \leq n_1 \leq 21$)
 and n_2 = characteristic size of the window ($3 \leq n_2 \leq 10$)

The dimensions can be calculated :

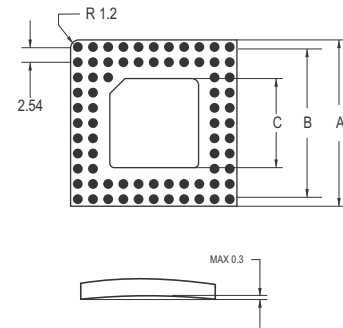
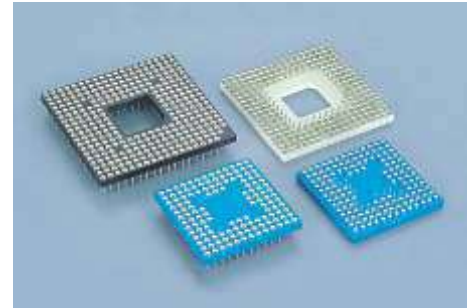
| | |
|--------------------------------|-----------------------------------|
| ◆ For moulded polyester bodies | ◆ For machined glass-epoxy bodies |
| $A = n_1 \times 2.54$ | $A = n_1 \times 2.54 + 1.27$ |
| $B = (n_1 - 1) \times 2.54$ | $B = (n_1 - 1) \times 2.54$ |
| $C = (n_2 \times 2.54) - 0.40$ | $C = (n_2 \times 2.54) - 0.40$ |

Insulator thickness

| | |
|--------------------------------|-------------------------------------|
| ◆ For moulded polyester bodies | ◆ For machined glass - epoxy bodies |
| 2.8 ± 0.3 mm | 1.6 ± 0.1 mm |

Features

- High density connecting devices for PGA Chips.
- Low contact insertion and withdrawal forces.
- Available in various pin grid sizes, pin counts & staggered versions.
- Any combination of pin grid & contact loading can be supplied.
- Insulator of glass filled thermoplastic or fiberglass epoxy available.
- With or without window.

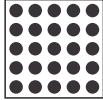
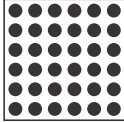
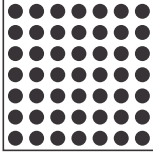
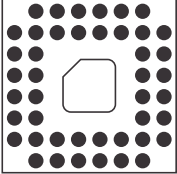
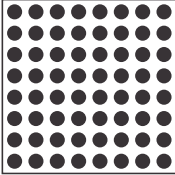
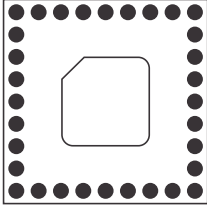
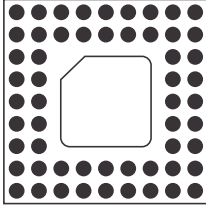
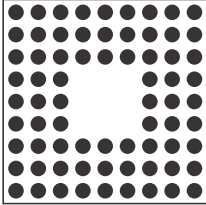
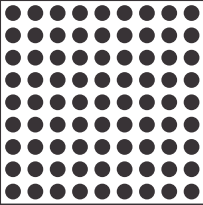
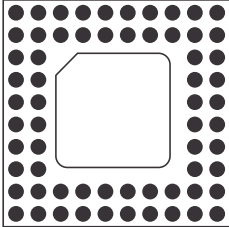
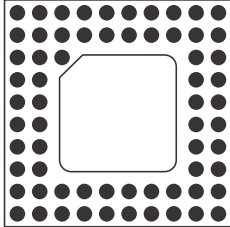
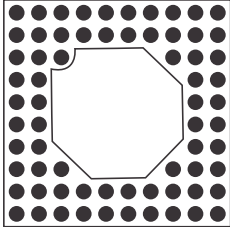
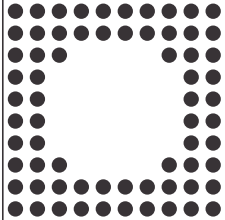
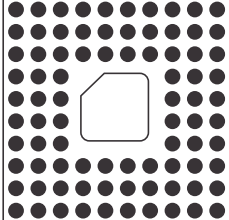
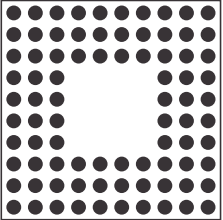
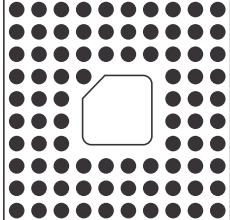


ORDERING INFORMATION

| PX PGA Socket Series | XX Grid Size Spacing | XXX Number of Contacts | X Size of window | X Tail Type | X Plating | |
|---|--|------------------------------|--------------------------|--|---|--------------|
| | | | | | Inner Clip | Outer Sleeve |
| A - Grid Array SKT Polyester Insulator | 05 = 5x5 06 = 6x6 | 025 to 999 | A = No Window B C | A = Solder Pin 3 mm Tail, accepts $\varnothing 0.7 - \varnothing 0.8$ mm | 1 = 0.25μ Au | 5μ Sn |
| H - Grid Array SKT Glass Epoxy Insulator | 07 = 7x7 08 = 8x8 09 = 9x9 | | D E For F Window | B = Interconnect Pin L=15.2 mm C = Interconnect Pin L=18.8 mm D = PGA Solder Pin 3.20mm Tail E = PGA Solder Pin 4.2 mm Tail | 2 = 0.75μ Au | 5μ Sn |
| F - Grid Array SKT Staggered contacts Glass Epoxy Insulator | 10 = 10x10 11 = 11x11 12 = 12x12 13 = 13x13 | | G H refer I sheets | F = 3 level PGA w/w \varnothing G = Solder Pin 3.9 mm Tail 5 = Adaptor Pin \varnothing^* | 3 = 5μ Sn 4 = 0.75μ Au | 5μ Sn |
| G - Grid Array SKT Zig Zag type 1.6 mm thickness | 14 = 14x14 15 = 15x15 16 = 16x16 17 = 17x17 18 = 18x18 19 = 19x19 20 = 20x20 21 = 21x21 | | J K L M | | \varnothing^* - For type 5 pin 1 = 5μ Sn 4 = 0.25μ Au | |
| | | | | \varnothing - Not available on High Density staggered PGA Socket version | | |

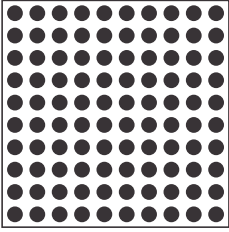
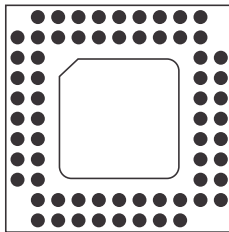
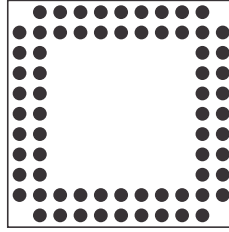
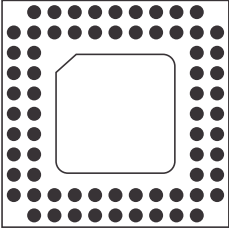
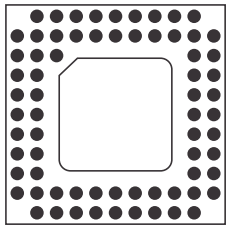
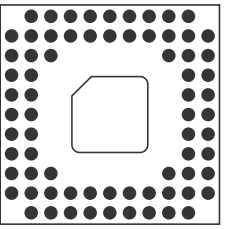
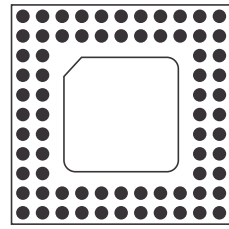
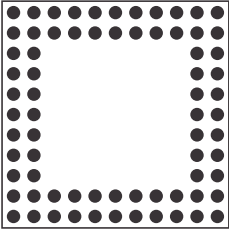
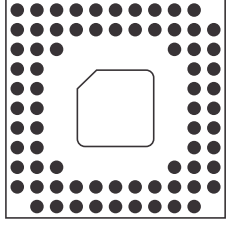
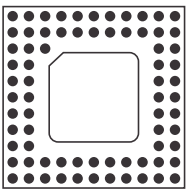
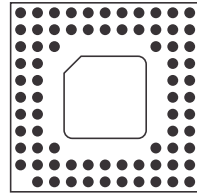
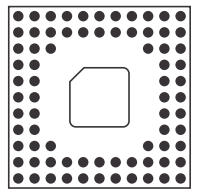
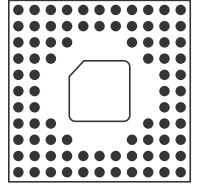
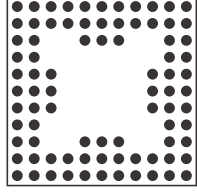
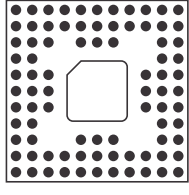
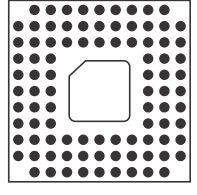
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|---|---|--|---|
| <p>5 x 5 25 Pins</p>  | <p>6 x 6 36 Pins</p>  | <p>7 x 7 49 Pins</p>  | <p>8 x 8 44 Pins</p>  |
| PX - 05 - 025 - AXX | PX - 06 - 036 - AXX | PX - 07 - 049 - AXX | PX - 08 - 044 - BXX |
| <p>8 x 8 64 Pins</p>  | <p>9 x 9 32 Pins</p>  | <p>9 x 9 56 Pins</p>  | <p>9 x 9 72 Pins</p>  |
| PX - 08 - 064 - AXX | PX - 09 - 032 - CXX | PX - 09 - 056 - CXX | PX - 09 - 072 - AXX |
| <p>9 x 9 81 Pins</p>  | <p>10 x 10 64 Pins</p>  | <p>10 x 10 65 Pins</p>  | <p>10 x 10 68 Pins</p>  |
| PX - 09 - 081 - AXX | PX - 10 - 064 - DXX | PX - 10 - 065 - DXX | PX - 10 - 068 - OXX |
| <p>10 x 10 68 Pins</p>  | <p>10 x 10 84 Pins</p>  | <p>10 x 10 84 Pins</p>  | <p>10 x 10 85 Pins</p>  |
| PX - 10 - 068 - AXX | PX - 10 - 084 - BXX | PX - 10 - 084 - AXX | PX - 10 - 085 - BXX |

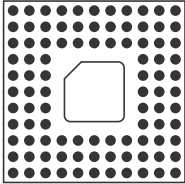
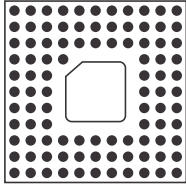
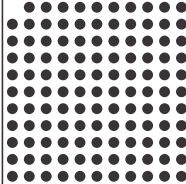
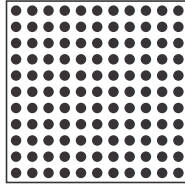
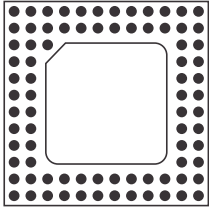
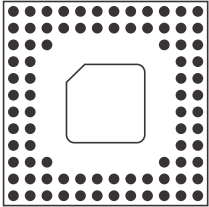
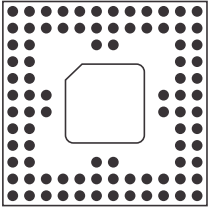
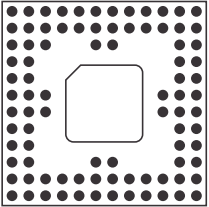
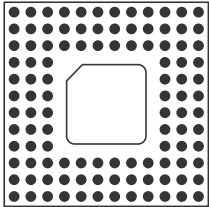
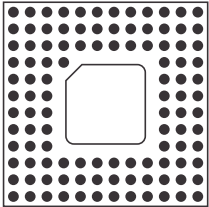
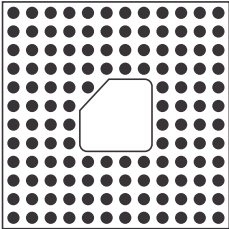
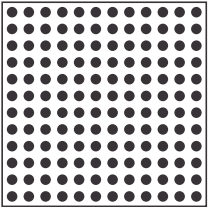
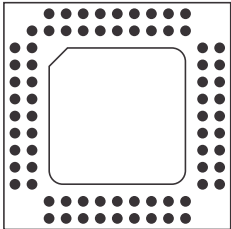
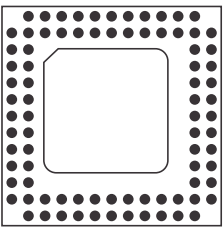
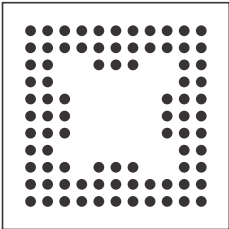
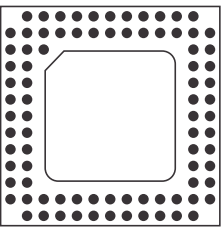
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|---|---|--|---|
| <p>10 x 10 100 Pins</p>  | <p>11 x 11 65 Pins</p>  | <p>11 x 11 68 Pins</p>  | <p>11 x 11 68 Pins</p>  |
| PX - 10 - 100 - AXX | PX - 11 - 065 - EXX | PX - 11 - 068 - AXX | PX - 11 - 068 - EXX |
| <p>11 x 11 69 Pins</p>  | <p>11 x 11 72 Pins</p>  | <p>11 x 11 72 Pins</p>  | <p>11 x 11 72 Pins</p>  |
| PX - 11 - 069 - EXX | PX - 11 - 072 - CXX | PX - 11 - 072 - EXX | PX - 11 - 072 - AXX |
| <p>11 x 11 73 Pins</p>  | <p>11 x 11 73 Pins</p>  | <p>11 x 11 75 Pins</p>  | <p>11 x 11 76 Pins</p>  |
| PX - 11 - 073 - CXX | PX - 11 - 073 - EXX | PX - 11 - 075 - DXX | PX - 11 - 076 - CXX |
| <p>11 x 11 84 Pins</p>  | <p>11 x 11 84 Pins</p>  | <p>11 x 11 85 Pins</p>  | <p>11 x 11 92 Pins</p>  |
| PX - 11 - 084 - CXX | PX - 11 - 084 - AXX | PX - 11 - 085 - CXX | PX - 11 - 092 - CXX |

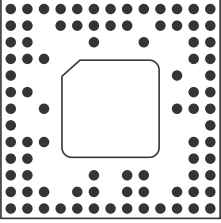
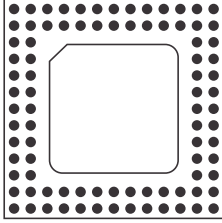
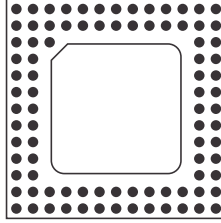
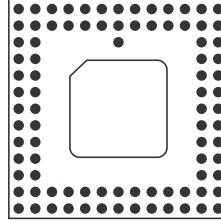
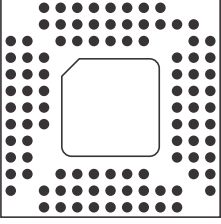
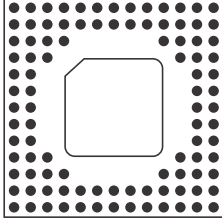
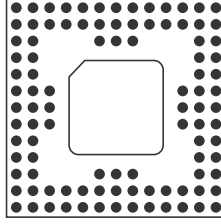
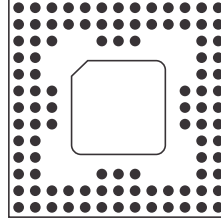
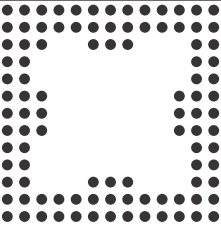
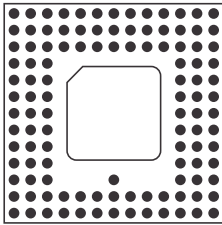
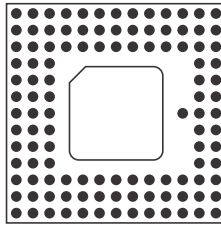
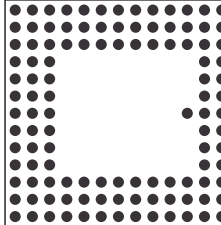
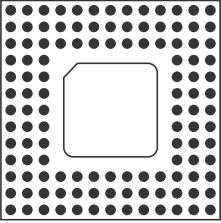
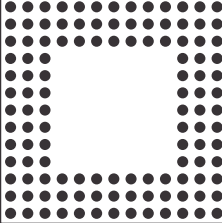
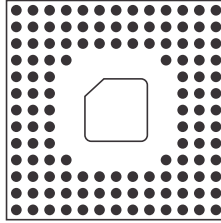
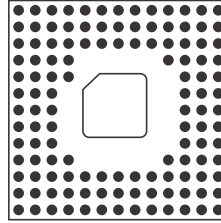
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|--|--|---|--|
| <p>11 x 11 96 Pins</p>  | <p>11 x 11 97 Pins</p>  | <p>11 x 11 120 Pins</p>  | <p>11 x 11 121 Pins</p>  |
| PX - 11 - 096 - CXX | PX - 11 - 097 - CXX | PX - 11 - 120 - AXX | PX - 11 - 121 - AXX |
| <p>12 x 12 81 Pins</p>  | <p>12 x 12 84 Pins</p>  | <p>12 x 12 88 Pins</p>  | <p>12 x 12 89 Pins</p>  |
| PX - 12 - 081 - FXX | PX - 12 - 084 - DXX | PX - 12 - 088 - DXX | PX - 12 - 089 - DXX |
| <p>12 x 12 108 Pins</p>  | <p>12 x 12 109 Pins</p>  | <p>12 x 12 129 Pins</p>  | <p>12 x 12 144 Pins</p>  |
| PX - 12 - 108 - DXX | PX - 12 - 109 - DXX | PX - 12 - 129 - CXX | PX - 12 - 144 - AXX |
| <p>13 x 13 73 Pins</p>  | <p>13 x 13 84 Pins</p>  | <p>13 x 13 85 Pins</p>  | <p>13 x 13 85 Pins</p>  |
| PX - 13 - 073 - GXX | PX - 13 - 084 - GXX | PX - 13 - 085 - AXX | PX - 13 - 085 - GXX |

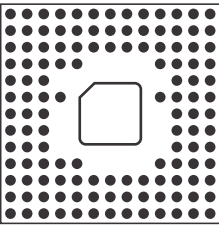
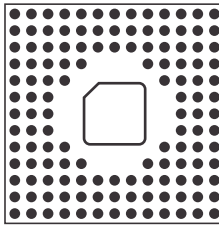
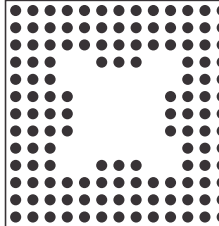
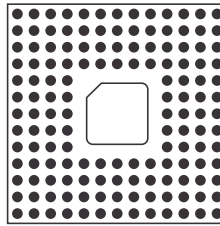
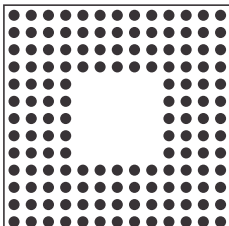
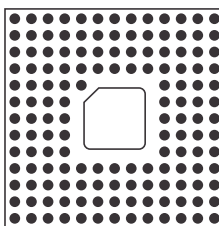
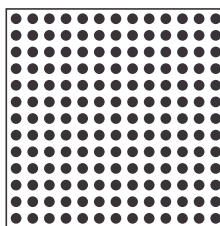
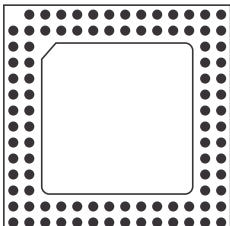
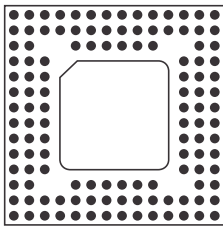
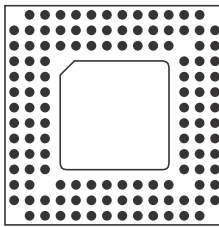
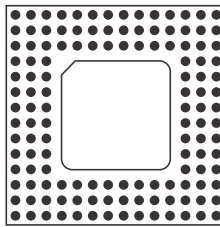
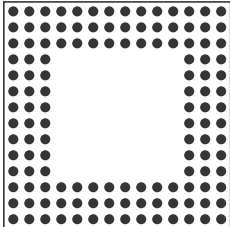
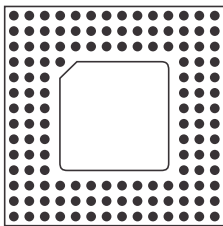
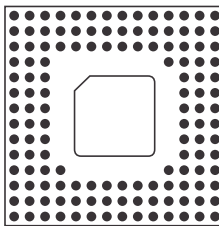
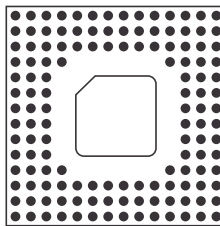
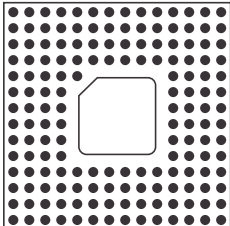
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|--|--|---|--|
| <p>13 x 13 88 Pins</p>  | <p>13 x 13 88 Pins</p>  | <p>13 x 13 89 Pins</p>  | <p>13 x 13 89 Pins</p>  |
| PX - 13 - 088 - EXX | PX - 13 - 088 - GXX | PX - 13 - 089 - GXX | PX - 13 - 089 - EXX |
| <p>13 x 13 98 Pins</p>  | <p>13 x 13 100 Pins</p>  | <p>13 x 13 100 Pins</p>  | <p>13 x 13 101 Pins</p>  |
| PX - 13 - 098 - EXX | PX - 13 - 100 - EXX | PX - 13A 100 - EXX | PX - 13 - 101 - EXX |
| <p>13 x 13 101 Pins</p>  | <p>13 x 13 114 Pins</p>  | <p>13 x 13 114 Pins</p>  | <p>13 x 13 114 Pins</p>  |
| PX - 13 - 101 - AXX | PX - 13 - 114 - EXX | PX - 13A 114 - EXX | PX - 13 - 114 - AXX |
| <p>13 x 13 120 Pins</p>  | <p>13 x 13 120 Pins</p>  | <p>13 x 13 124 Pins</p>  | <p>13 x 13 125 Pins</p>  |
| PX - 13 - 120 - EXX | PX - 13 - 120 - AXX | PX - 13 - 124 - CXX | PX - 13 - 125 - CXX |

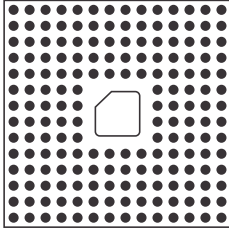
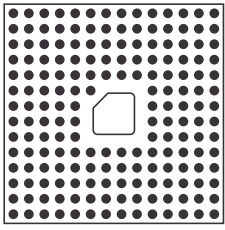
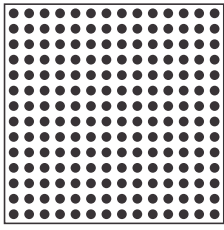
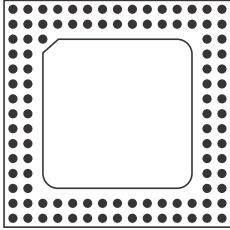
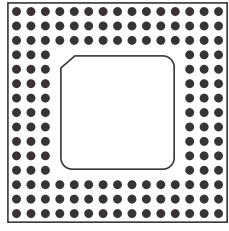
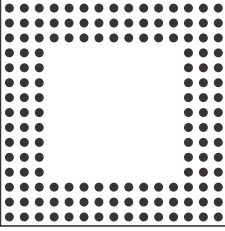
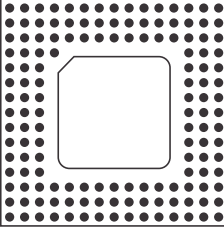
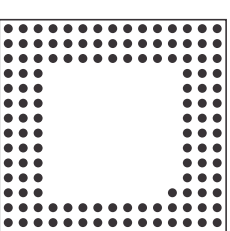
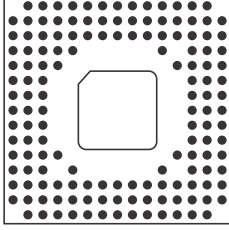
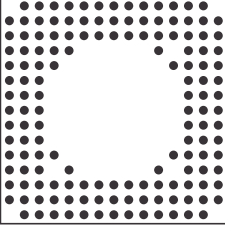
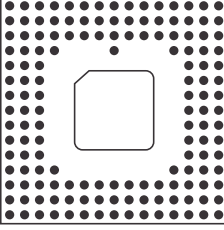
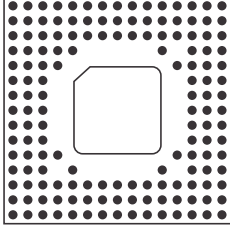
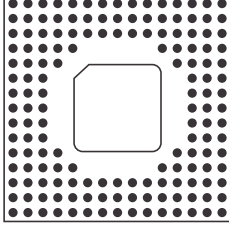
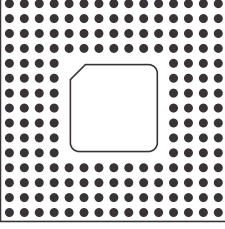
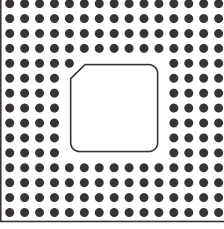
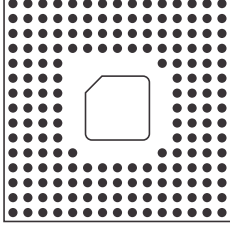
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|--|--|---|--|
| <p>13 x 13 128 Pins</p>  | <p>13 x 13 132 Pins</p>  | <p>13 x 13 132 Pins</p>  | <p>13 x 13 144 Pins</p>  |
| PX - 13 - 128 - CXX | PX - 13 - 132 - CXX | PX - 13 - 132 - AXX | PX - 13 - 144 - CXX |
| <p>13 x 13 144 Pins</p>  | <p>13 x 13 145 Pins</p>  | <p>13 x 13 169 Pins</p>  | <p>14 x 14 95 Pins</p>  |
| PX - 13 - 144 - AXX | PX - 13 - 145 - CXX | PX - 13 - 169 - AXX | PX - 14 - 095 - IXX |
| <p>14 x 14 124 Pins</p>  | <p>14 x 14 125 Pins</p>  | <p>14 x 14 132 Pins</p>  | <p>14 x 14 132 Pins</p>  |
| PX - 14 - 124 - FXX | PX - 14 - 125 - FXX | PX - 14 - 132 - FXX | PX - 14 - 132 - AXX |
| <p>14 x 14 133 Pins</p>  | <p>14 x 14 135 Pins</p>  | <p>14 x 14 136 Pins</p>  | <p>14 x 14 161 Pins</p>  |
| PX - 14 - 133 - FXX | PX - 14 - 135 - DXX | PX - 14 - 136 - DXX | PX - 14 - 161 - DXX |

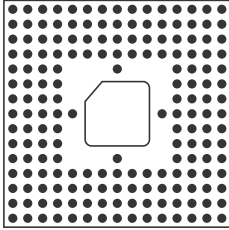
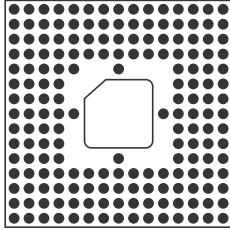
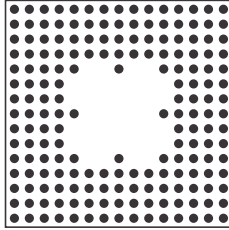
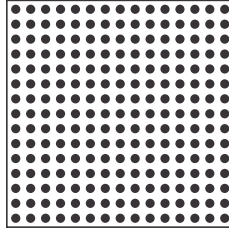
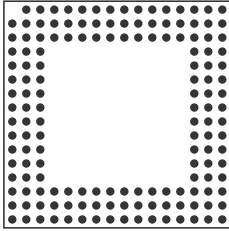
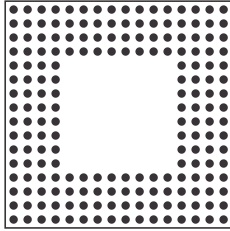
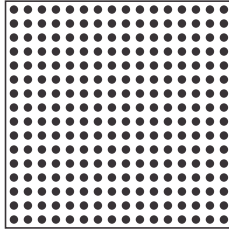
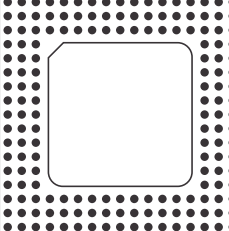
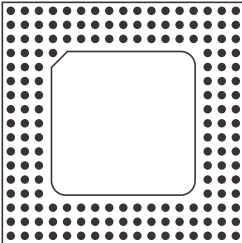
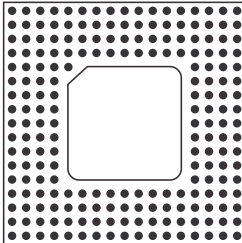
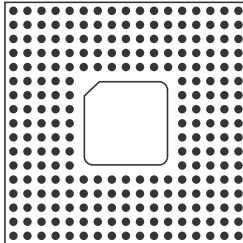
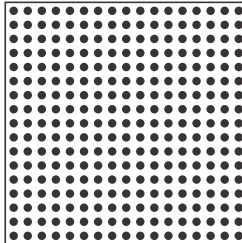
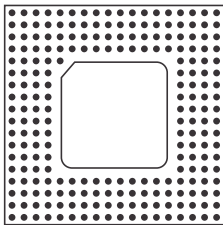
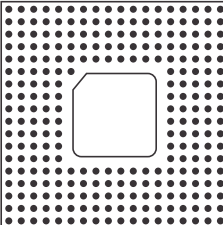
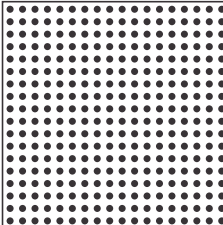
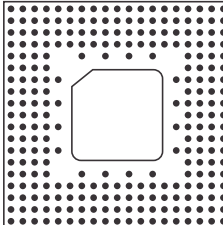
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|--|--|---|--|
| <p>14 x 14 180 Pins</p>  | <p>14 x 14 181 Pins</p>  | <p>14 x 14 196 Pins</p>  | <p>15 x 15 105 Pins</p>  |
| PX - 14 - 180 - BXX | PX - 14 - 181 - BXX | PX - 14 - 196 - AXX | PX - 15 - 105 - IXX |
| <p>15 x 15 144 Pins</p>  | <p>15 x 15 144 Pins</p>  | <p>15 x 15 145 Pins</p>  | <p>15 x 15 145 Pins</p>  |
| PX - 15 - 144 - GXX | PX - 15 - 144 - AXX | PX - 15 - 145 - GXX | PX - 15 - 145 - AXX |
| <p>15 x 15 149 Pins</p>  | <p>15 x 15 149 Pins</p>  | <p>15 x 15 149 Pins</p>  | <p>15 x 15 153 Pins</p>  |
| PX - 15A 149 - EXX | PX - 15 - 149 - AXX | PX - 15 - 149 - EXX | PX - 15 - 153 - EXX |
| <p>15 x 15 156 Pins</p>  | <p>15 x 15 176 Pins</p>  | <p>15 x 15 177 Pins</p>  | <p>15 x 15 179 Pins</p>  |
| PX - 15 - 156 - EXX | PX - 15 - 176 - EXX | PX - 15 - 177 - EXX | PX - 15 - 179 - CXX |

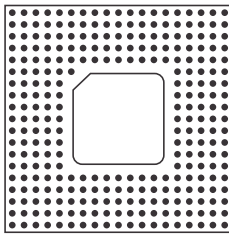
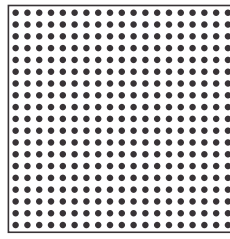
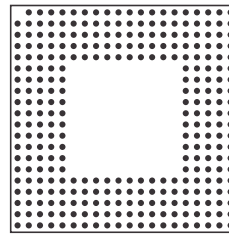
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|--|--|---|--|
| <p>15 x 15 180 Pins</p>  | <p>15 x 15 181 Pins</p>  | <p>15 x 15 184 Pins</p>  | <p>15 x 15 225 Pins</p>  |
| PX - 15 - 180 - CXX | PX - 15 - 181 - CXX | PX - 15 - 184 - AXX | PX - 15 - 225 - AXX |
| <p>16 x 16 155 Pins</p>  | <p>16 x 16 192 Pins</p>  | <p>16 x 16 256 Pins</p>  | <p>17 x 17 168 Pins</p>  |
| PX - 16 - 155 - AXX | PX - 16 - 192 - AXX | PX - 16 - 256 - AXX | PX - 17 - 168 - IXX |
| <p>17 x 17 169 Pins</p>  | <p>17 x 17 209 Pins</p>  | <p>17 x 17 240 Pins</p>  | <p>17 x 17 289 Pins</p>  |
| PX - 17 - 169 - IXX | PX - 17 - 209 - GXX | PX - 17 - 240 - EXX | PX - 17 - 289 - AXX |
| <p>18 x 18 225 Pins</p>  | <p>18 x 18 261 Pins</p>  | <p>18 x 18 324 Pins</p>  | <p>19 x 19 256 Pins</p>  |
| PX - 18 - 225 - HXX | PX - 18 - 261 - FXX | PX - 18 - 324 - AXX | PX - 19 - 256 - GXX |

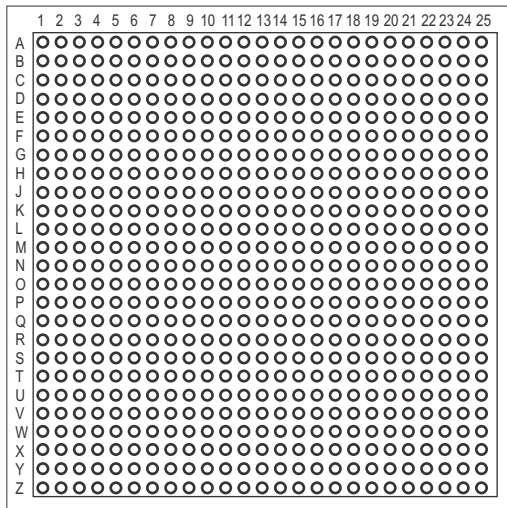
PIN GRID ARRAY SOCKETS STANDARD FOOT PRINTS

SERIES PGA

| | | | |
|--|--|---|--|
| 19 x 19 281 Pins  | 19 x 19 361 Pins  | 20 x 20 299 Pins  | |
| PX - 19 - 281 - GXX | PX - 19 - 361 - AXX | PX - 20 - 299 - AXX | |

PIN GRID ARRAY SOCKETS CUSTOM GRID DESIGN

If the desired footprint does not exist in this catalogue, please photocopy the page, complete it and send it to PROTECTRON



YOUR ADDRESS

.....

.....

.....

ORDERING INFORMATION

1. Type of PGA

2. Type of Pin

3. Plating

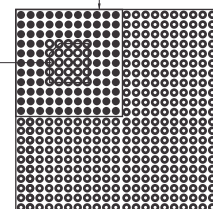
Insulator

4. Size of body

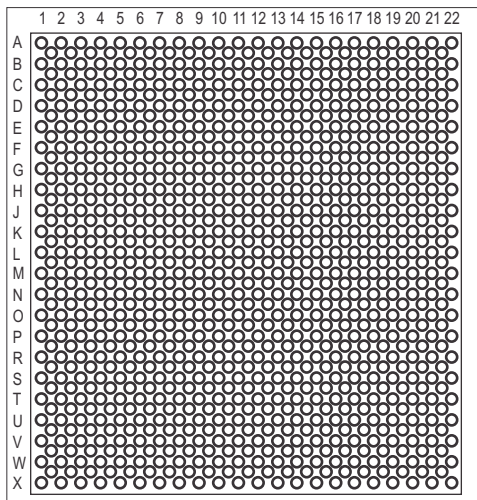
X

Example :

Fill in the
Position of pins
Mark of
the window



TOP VIEW



TECHNICAL SPECIFICATIONS FOR PLCC SOCKETS

| Connector Parts | Materials & Finishes |
|-----------------|---------------------------------------|
| Insulator Body | Polyphenylenedene Sulphide (PPS) |
| Contact | Copper alloy, tin plated over nickel. |

Mechanical Properties

| | Solder Tail Version | SMD Version |
|------------------|------------------------|------------------------|
| Mechanical life | 50 cycles min. | 25 cycles min. |
| Contact Pressure | 1.5 N min. per contact | 1.2 N min. per contact |

Electrical Properties

| | Solder Tail Version | SMD Version |
|-----------------------|----------------------|----------------------|
| Rated Current | 2A | 1A |
| Contact resistance | 20 m Ω max. | 20 m Ω max |
| Insulation resistance | 5000 M Ω min. | 5000 M Ω min. |
| Dielectric strength | 600 VRMS min. | 600 VRMS min. |
| Capacitance | 2 Pf max. | 2 Pf max. |

Environmental Properties

| | | |
|---|---|---------------------|
| Operating temperature range | : | -55° / +125° c |
| Vibration (No electrical discontinuity > 1 micro sec) | : | 10 to 2000 Hz, 15g. |

PLASTIC LEADED CHIP CARRIER SOCKETS SOLDER TAIL

PLCC Series

Features

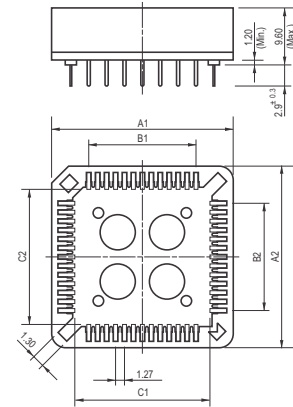
- Polarizing feature for chip and socket insertion
- High reliability contacts
- Slots in insulator allow use of extraction tool
- Board stand-off for easy cleaning
- Holds chip in place by positive springs action



| No. of Pins | A ₁ Max | A ₂ Max | B1 | B2 | C1 Max | C2 Max | Part No. |
|-------------|--------------------|--------------------|-------|-------|--------|--------|----------------|
| 20 | 15.56 | 15.56 | 5.08 | 5.08 | 9.38 | 9.38 | PLC-02-020-1-1 |
| 28 | 18.30 | 18.30 | 7.62 | 7.62 | 11.92 | 11.92 | PLC-02-028-1-1 |
| 32 | 18.75 | 21.30 | 7.62 | 10.16 | 11.92 | 14.46 | PLC-02-032-1-1 |
| 44 | 23.50 | 23.50 | 12.70 | 12.70 | 17.00 | 17.00 | PLC-02-044-1-1 |
| 52 | 25.90 | 25.90 | 15.24 | 15.24 | 19.54 | 19.54 | PLC-02-052-1-1 |
| 68 | 31.80 | 31.80 | 20.32 | 20.32 | 24.62 | 24.62 | PLC-02-068-1-1 |
| 84 | 36.88 | 36.88 | 25.40 | 25.40 | 29.70 | 29.70 | PLC-02-084-1-1 |

For PCB Hole pattern refer page 149

All Dimensions are in mm



SOCKET PIN LAYOUT & SOCKET DIMENSIONS

PLASTIC LEADED CHIP CARRIER SOCKETS SURFACE MOUNTED

PLCC Series

Features

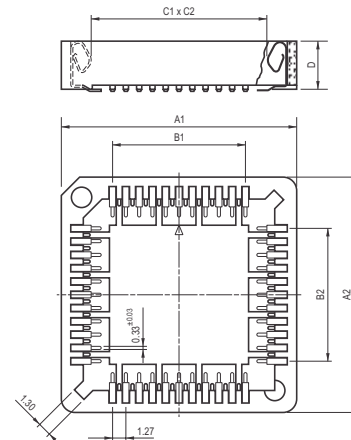
- PLCC sockets with SMD terminations come with square sizes for IC-packages according to JEDEC MO-047, rectangular size (32) according to JEDEC MO-052 = low profile.
- SMD tail width 0.33 mm.
- Guaranteed coplanarity tolerance of SMD terminations max. 0.10 mm.
- Parts with 2 positioning pegs also offered on request.



| No. of Pins | A ₁ Max | A ₂ Max | B1 | B2 | C1 Max | C2 Max | D | Part No. |
|-------------|--------------------|--------------------|-------|-------|--------|--------|------|----------------|
| 20 | 15.65 | 15.65 | 5.08 | 5.08 | 9.38 | 9.38 | 4.60 | PLC-02-020-2-1 |
| 28 | 18.18 | 18.18 | 7.62 | 7.62 | 11.92 | 11.92 | 4.60 | PLC-02-028-2-1 |
| 32 | 18.23 | 20.75 | 7.62 | 10.16 | 11.92 | 14.46 | 4.50 | PLC-02-032-2-1 |
| 44 | 23.28 | 23.28 | 12.70 | 12.70 | 17.00 | 17.00 | 4.60 | PLC-02-044-2-1 |
| 52 | 25.84 | 25.84 | 15.24 | 15.24 | 19.54 | 19.54 | 4.60 | PLC-02-052-2-1 |
| 68 | 30.95 | 30.95 | 20.32 | 20.32 | 24.62 | 24.62 | 4.60 | PLC-02-068-2-1 |
| 84 | 36.00 | 36.00 | 25.40 | 25.40 | 29.70 | 29.70 | 4.60 | PLC-02-084-2-1 |

For PCB Foot Prints refer page 150

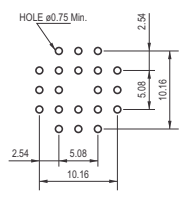
All Dimensions are in mm



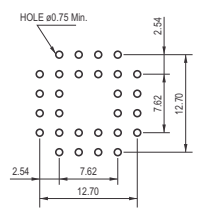
SOCKET PIN LAYOUT & SOCKET DIMENSIONS

PLASTIC LEADED CHIP CARRIER SOCKETS SOLDER TAIL

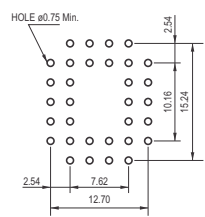
PLCC SOCKETS



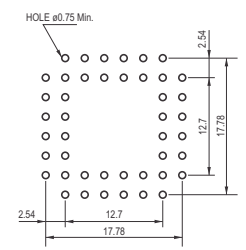
20 Pins



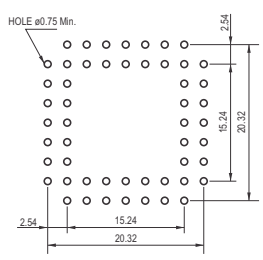
28 Pins



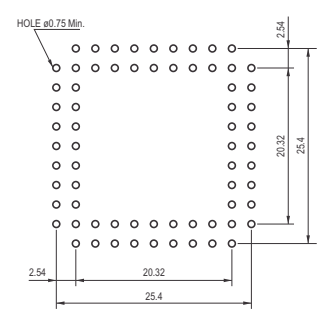
32 Pins



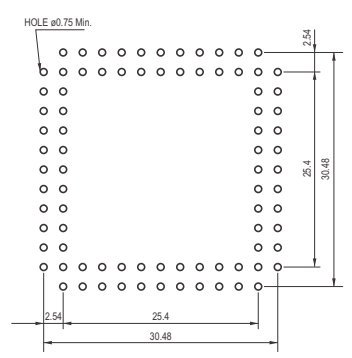
44 Pins



52 Pins



68 Pins

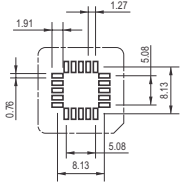


84 Pins

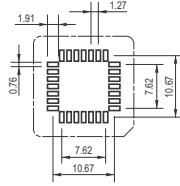
PCB hole patterns - through board type

PLASTIC LEADED CHIP CARRIER SOCKETS SURFACE MOUNTED

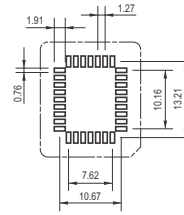
PLCC SOCKETS



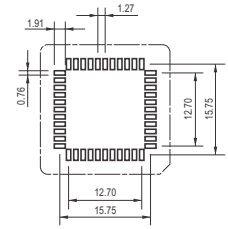
20 Pins



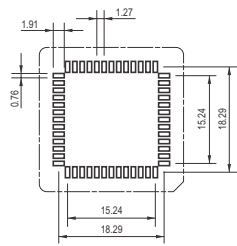
28 Pins



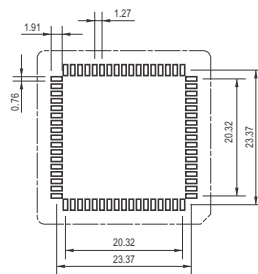
32 Pins



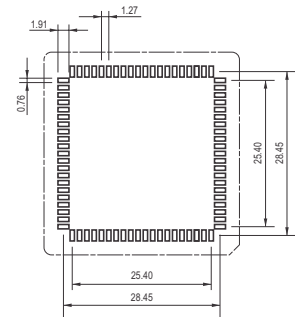
44 Pins



52 Pins



68 Pins



84 Pins

PCB Foot prints - SMD type