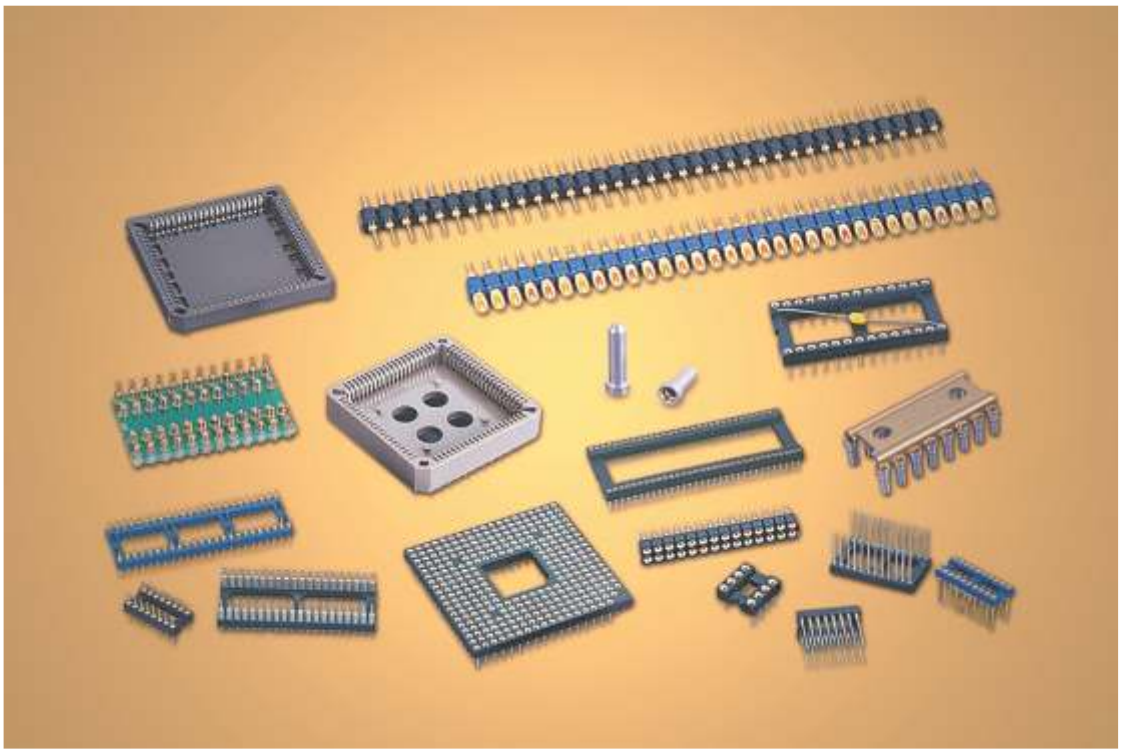
PROTECTRON

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, Polyphenyledene 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 0.25µ, Outer sleeve tin plated 5µ, Capacitor type then the Part Number will be

P8 0 5 6 28 1 1 C
P8 0 5 X XX X X X

IC Socket Series

Pitch (Row to Row) P 8 0 5 X

0 = SIL
1 = 0.1" Pitch
3 = 0.3" Pitch
4 = 0.4" Pitch
6 = 0.6" Pitch
7 = 0.75" Pitch
9 = 0.9 Pitch

Number of Contacts XX

01 to 64

Type of Terminal X

0 = Flat Pin (No Mating)
1 = Solder Pin 3.2 mm Tail
2 = Solder Pin 4.2 mm Tail
3 = 2 Level Wirewrap 9.5 mm
4 = 3 Level Wirewrap 13 mm
5 = Adaptor Pin L-12 mm
6 = Bifurcated Pin
7 = Solder Cup Pin
8 = Turret Pin
9 = Interconnect Pin L-15.22 mm
A = Solder Pin 2.4 mm Tail (Ultra flat)
B = Solder Pin 2.8 mm Tail (Super flat)
C = Headless Pin 3.2 mm Tail for Shrink dip
D = Mini Spring Socket L-4.25 mm, I=3.45 mm
E = Mini Spring Socket L-6.3 mm, I=5.5 mm
F = Adaptor Pin L-10 mm, Ø0.76/Ø0.6
G = Adaptor Pin L-10 mm, Ø0.46 mm
H = Solder Pin 3.2 mm Tail w/o Fishook
I = Solder Pin 7.6mm Tail
J = Adaptor Pin L-12.0mm, Ø0.76/Ø0.53mm
K = Flat Pin (no Mating) L-16.7mm, 2.9mm Tail
L = Interconnect Pin L-22.1mm, Ø0.78/Ø0.53mm
M = Interconnect Pin L-22.1mm, Ø.72mm
N = Solder Pin L-18mm, 13.8mm Tail
O = Solder Pin L-20.9mm
P = Interconnect Pin L-22.6mm, Ø0.78/Ø0.53mm
Q = Solder Pin L-4.2mm w/o Tail
R = Adaptor Pin L-13.3mm, Ø0.76/Ø0.46mm
S = Adaptor Pin L-16mm, Ø0.75mm
U = Adaptor Pin L-16mm, Ø0.48/Ø0.53mm
V = Solder Pin L-13.9mm, 9.6mm Tail
W = Solder Pin L-8.9mm, 4.6mm Tail

Plating X

Inner Clip	Outer Sleeve
1 = 0.25µ Au	5µ Sn
2 = 0.75µ Au	5µ Sn
3 = 5µ Sn	5µ Sn
4 = 0.75µ Au	0.25µ Au

Additional Socket Identification X

B = Shrink Dip
C = Capacitor Type
H = Solder Version
I = Plug-in Version

FOR AVAILABILITY OF THE REQUIRED COMBINATION CHECK INDIVIDUAL DATA SHEETS

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

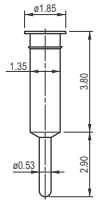
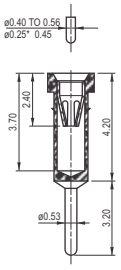
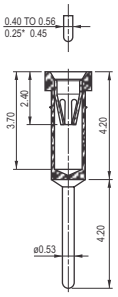
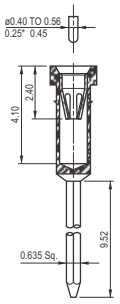
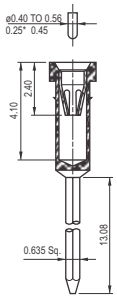
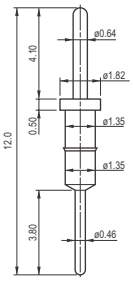
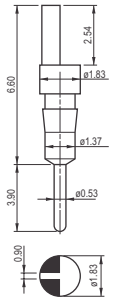
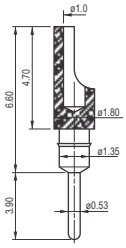
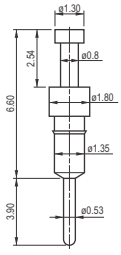
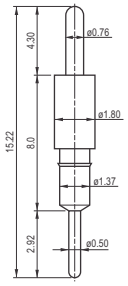
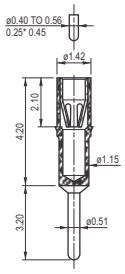
Electrical Properties

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)

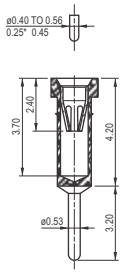
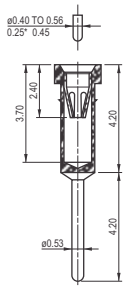
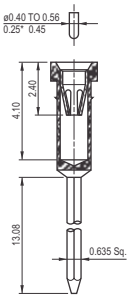
Environmental Properties

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

PIN LAYOUT

			
0 = Flat Pin	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	C = Headless Pin 3.2mm Tail	

PIN LAYOUT - PGA SOCKETS

			
D = 3.2mm Tail PGA Pin	E = 4.2mm Tail PGA Pin	F = 13mm PGA W/W	

DUAL IN - LINE SOCKETS STANDARD SOLDER TAIL

OPEN FRAME

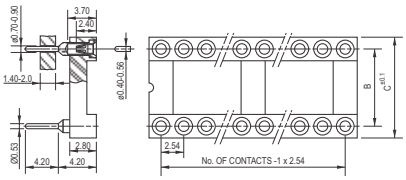
Features

- 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 3 = 0.3" Pitch 4 = 0.4" Pitch 6 = 0.6" Pitch 9 = 0.9" Pitch	01 to 64	1 = PC Pin 3.2mm 2 = PC Pin 4.2mm	1 = 0.25μ Au 2 = 0.75μ Au 3 = 5μ Sn 4 = 0.75μ Au	5μ Sn 5μ Sn 5μ Sn 0.25μ 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 - 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



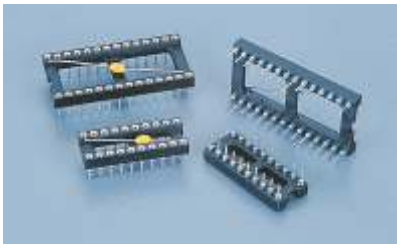
B: Pitch Row to Row
C: Total Socket Width

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

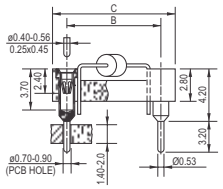


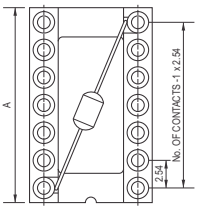
B: Pitch Row to Row
C: Total Socket Width

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 9 = 0.9" Pitch	01 to 64	1 = PC Pin 3.2 mm 2 = PC Pin 4.2 mm	1 = 0.25μ Au 2 = 0.75μ Au 3 = 5μ Sn 4 = 0.75μ Au	5μ Sn 5μ Sn 5μ Sn 0.25 μ Au	C: Capacitor 0.1 μ F 50 V

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



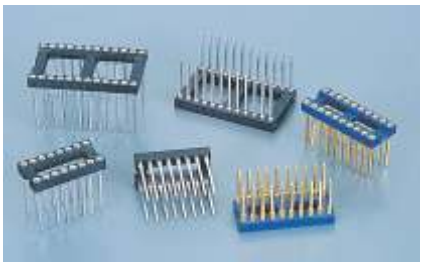


DUAL IN - LINE SOCKETS
WIRE WRAP 2, 3 LEVEL

OPEN FRAME

Features

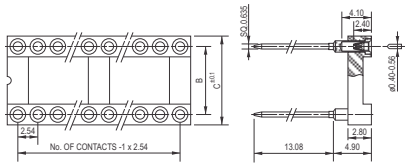
- End to end, side to side stackable
- No solder vicking
- Lead spacing 2.54 mm
- 2 & 3 level Wirewrap
- Stands 4.9 mm on PCB



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

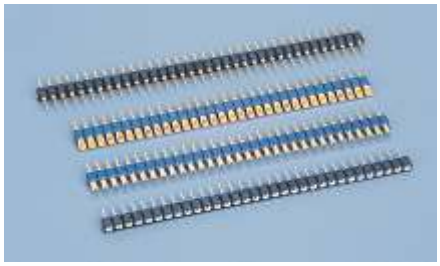


B: Pitch Row to Row
C: Total Socket Width

SINGLE IN - LINE SOCKETS

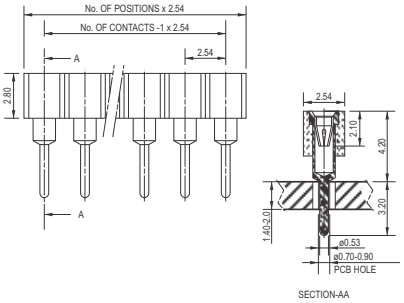
Features

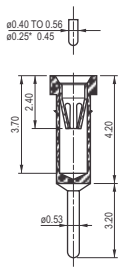
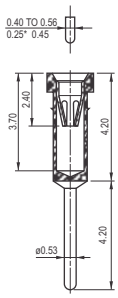
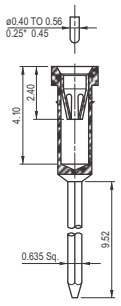
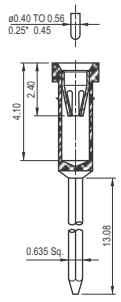
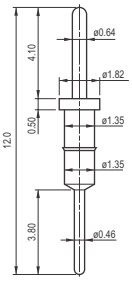
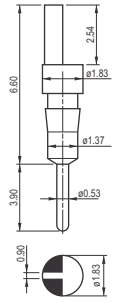
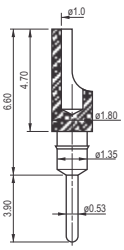
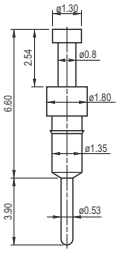
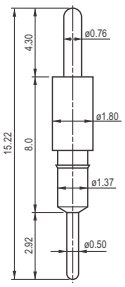
- Can be cut easily into required sizes
- Lead spacing 2.54mm
- Easy to stack
- Available in specific length



ORDERING INFORMATION

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



		
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

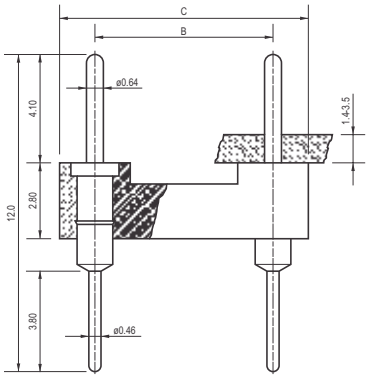
Features

- 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



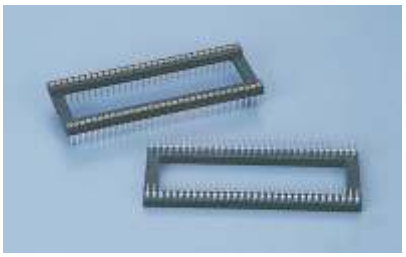
B: Pitch Row to Row
C: Total Socket Width

SHRINK DIP SOCKETS AND STRIPS SOLDER TAIL

OPEN FRAME

Features

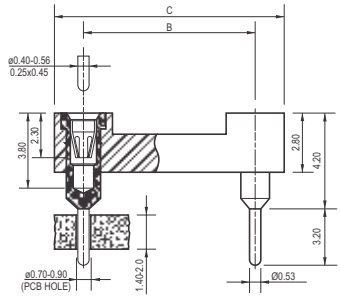
- End to end, side to side, stackable
- No solder vicking
- Stands 4.2 mm high on PCB
- Open Frame
- Lead spacing 0.07" (1.778 mm)



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 = 5μ Sn	5μ Sn 5μ Sn 5μ 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 SINGLE ROW STRIPS P8050 - 21 - XXB	P8057 - 64 - XXB



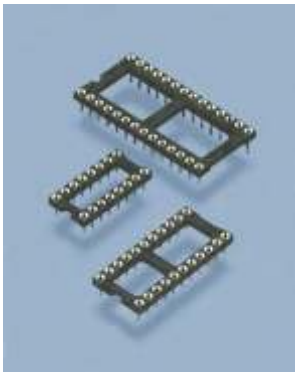
B: Pitch Row to Row
C: Total Socket Width

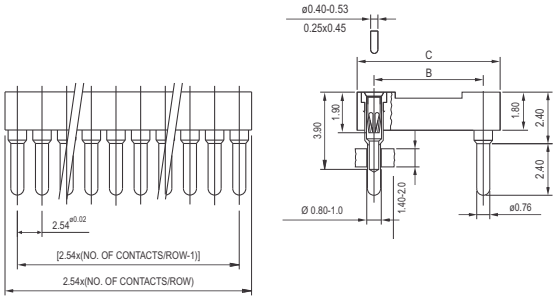
DUAL IN-LINE SOCKETS ULTRA FLAT

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 Plating Inner Clip	 outer sleeve	
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	D=Ultra Pin
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.

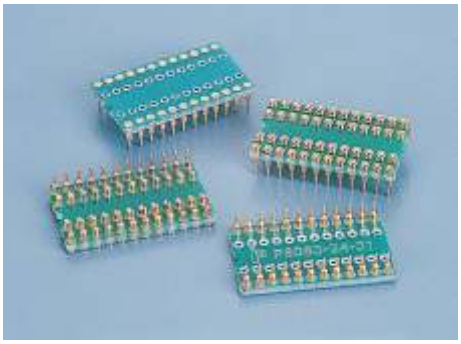
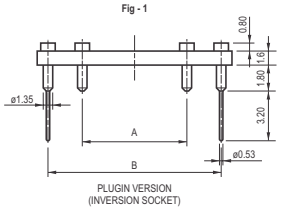
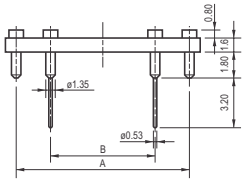


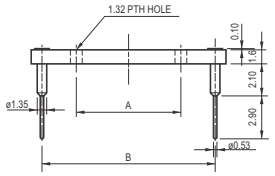
Fig - 1



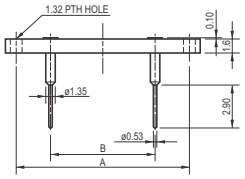
PLUGIN VERSION
(INVERSION SOCKET)

Fig - 2





SOLDER VERSION

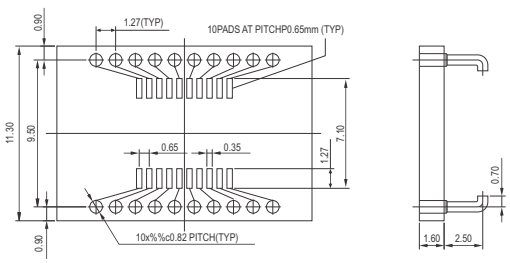


ORDERING INFORMATION

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

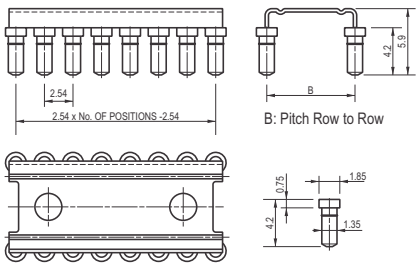
Features

- 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	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, I=3.45mm E= Mini Spring Skt, L- 6.3mm, I=5.5mm Q = Solder pin w/o tail (L-4.2mm)	1 = 0.25 µ Au 3 = 5 µ Sn	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

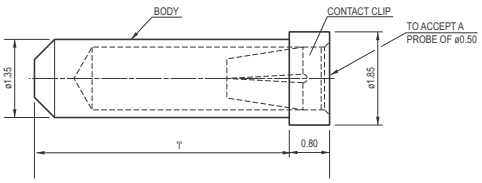
Same as IC Sockets

Material & Finish

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

Features

- Accepts mating pins of size Ø0.50±0.05mm
- Sockets are solder mount types
- Available in two lengths
- Mounting Hole Dia is Ø1.35+0/-0.02mm



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 V DC

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

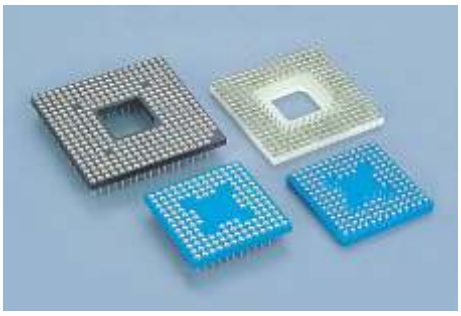
SERIES PGA

Dimension with n1 = number of contacts in one line (5≤n1≥21)

and n2 = characteristic size of the window (3≤n2≥10)

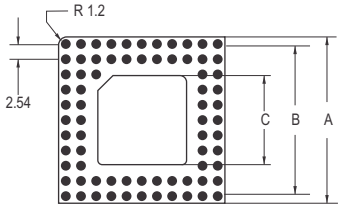
The dimensions can be calculated :

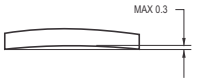
♦For moulded polyester bodies	♦For machined glass-epoxy bodies
A = n1 x 2.54	A = n1 x 2.54 + 1.27
B = (n1-1) x 2.54	B = (n1-1) x 2.54
C = (n2 x 2.54) - 0.40	C = (n2 x 2.54) - 0.40



Insulator thickness

♦ For moulded polyester bodies	♦ For machined glass - epoxy bodies
2.8 $^{+0.3}_{-0.1}$ mm	1.6 ± 0.1 mm





Features

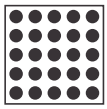
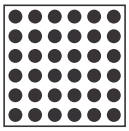
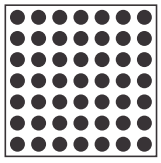
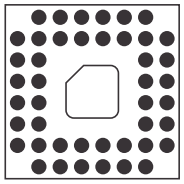
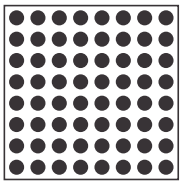
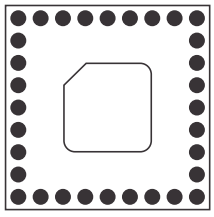
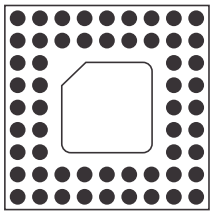
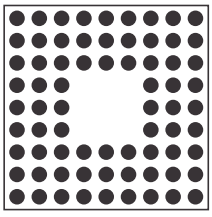
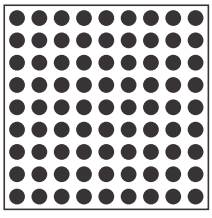
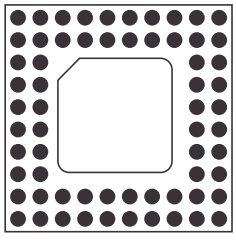
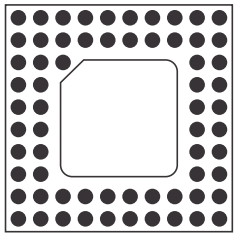
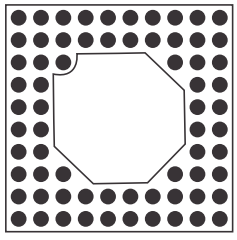
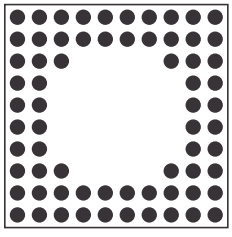
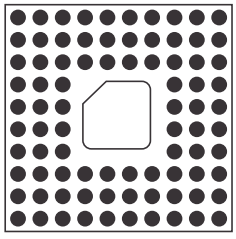
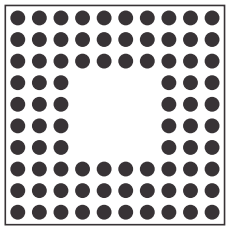
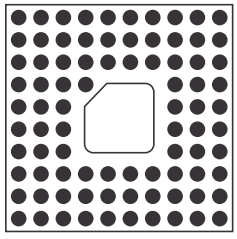
- High density connecting devices for PGA Chips.
- Low contact insertion and withdrawal forces.
- Available in various pin grid sizes, pin counts & staggered versions.
- Any combination of pin grid & contact loading can be supplied.
- Insulator of glass filled thermoplastic or fiberglass epoxy available.
- 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 07 = 7x7	025 to 999	A = No Window B C	A = Solder Pin 3 mm Tail, accepts Ø0.7 - Ø0.8 mm	1 = 0.25 µ Au 2 = 0.75 µ Au	5 µ Sn 5 µ Sn
H - Grid Array SKT Glass Epoxy Insulator	08 = 8x8 09 = 9x9 10 = 10x10		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	3 = 5 µ Sn 4 = 0.75 µ Au	5 µ Sn 0.25 µ Au
F - Grid Array SKT Staggered contacts Glass Epoxy Insulator	11 = 11x11 12 = 12x12 13 = 13x13 14 = 14x14		G Sizes H refer I sheets J	F = 3 level PGA w/w ℗ G = Solder Pin 3.9 mm Tail 5 = Adaptor Pin ℗*	℗* - For type 5 pin 1 = 5 µ Sn 4 = 0.25 µ Au	
G - Grid Array SKT Zig Zag type 1.6 mm thickness	15 = 15x15 16 = 16x16 17 = 17x17 18 = 18x18 19 = 19x19 20 = 20x20 21 = 21x21		K L M	℗ - Not available on High Density staggered PGA Socket version		

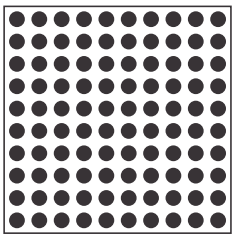
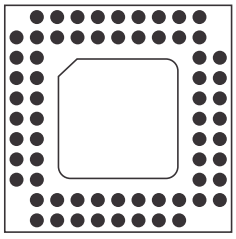
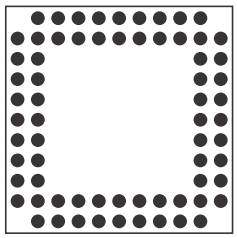
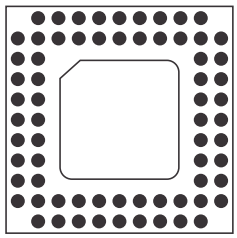
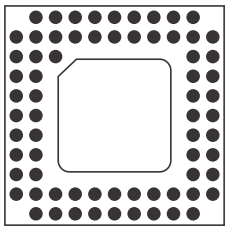
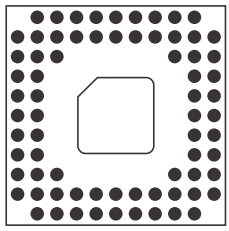
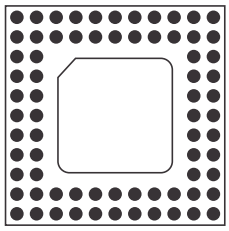
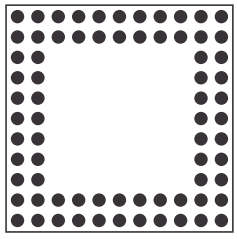
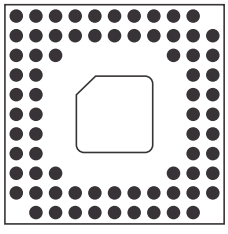
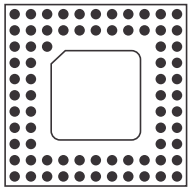
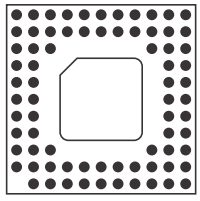
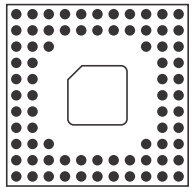
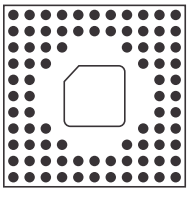
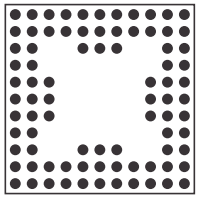
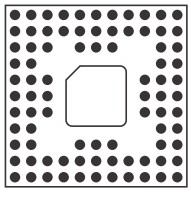
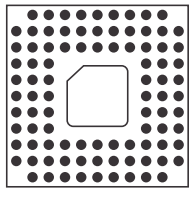
PIN GRID ARRAY SOCKETS
STANDARD FOOT PRINTS

SERIES PGA

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

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

PIN GRID ARRAY SOCKETS
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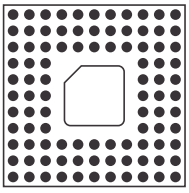
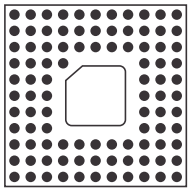
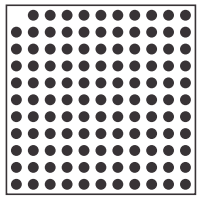
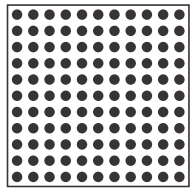
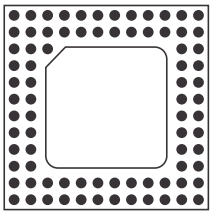
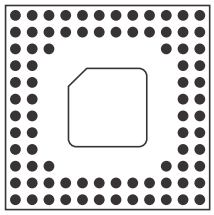
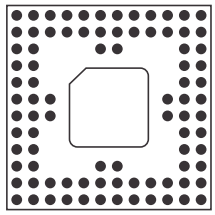
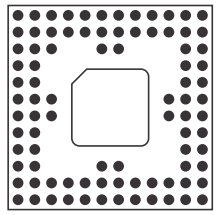
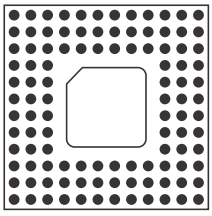
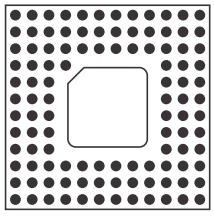
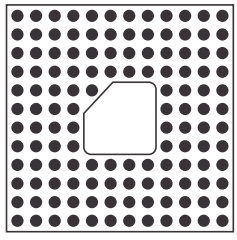
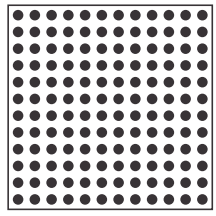
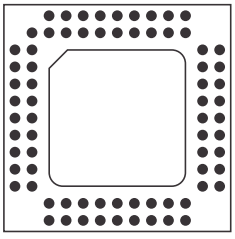
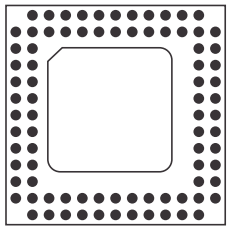
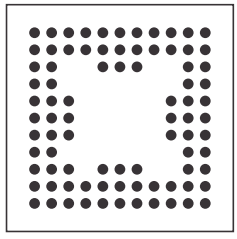
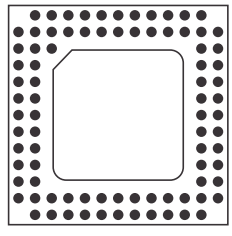
11 x 11 96 Pins 	11 x 11 97 Pins 	11 x 11 120 Pins 	11 x 11 121 Pins 
PX - 11 - 096 - CXX	PX - 11 - 097 - CXX	PX - 11 - 120 - AXX	PX - 11 - 121 - AXX
12 x 12 81 Pins 	12 x 12 84 Pins 	12 x 12 88 Pins 	12 x 12 89 Pins 
PX - 12 - 081 - FXX	PX - 12 - 084 - DXX	PX - 12 - 088 - DXX	PX - 12 - 089 - DXX
12 x 12 108 Pins 	12 x 12 109 Pins 	12 x 12 129 Pins 	12 x 12 144 Pins 
PX - 12 - 108 - DXX	PX - 12 - 109 - DXX	PX - 12 - 129 - CXX	PX - 12 - 144 - AXX
13 x 13 73 Pins 	13 x 13 84 Pins 	13 x 13 85 Pins 	13 x 13 85 Pins 
PX - 13 - 073 - GXX	PX - 13 - 084 - GXX	PX - 13 - 085 - AXX	PX - 13 - 085 - GXX

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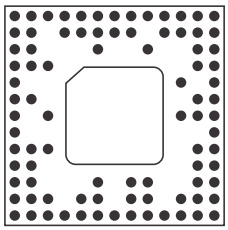
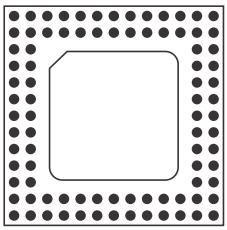
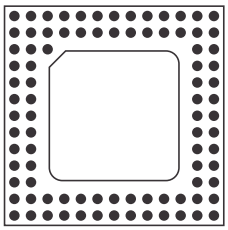
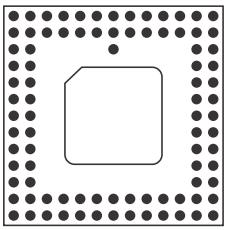
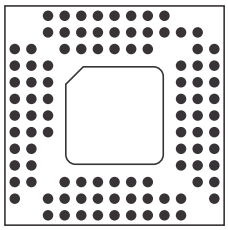
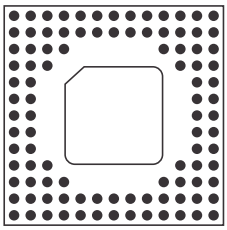
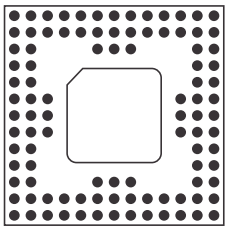
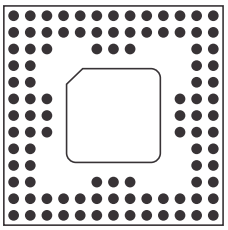
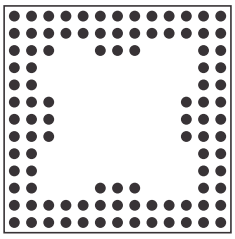
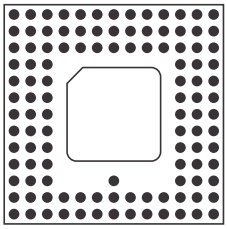
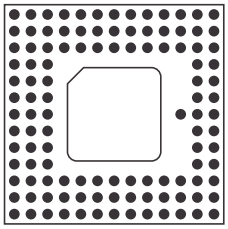
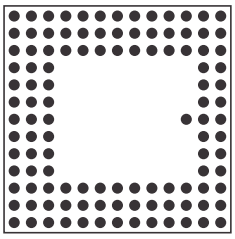
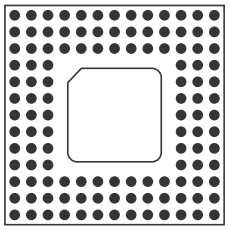
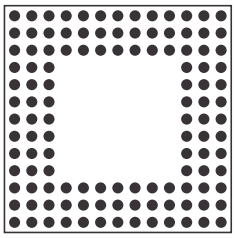
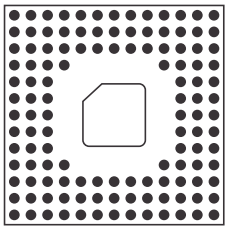
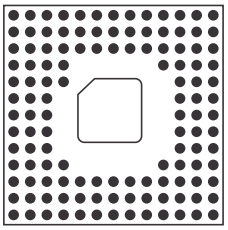
13 x 13 88 Pins 	13 x 13 88 Pins 	13 x 13 89 Pins 	13 x 13 89 Pins 
PX - 13 - 088 - EXX	PX - 13 - 088 - GXX	PX - 13 - 089 - GXX	PX - 13 - 089 - EXX
13 x 13 98 Pins 	13 x 13 100 Pins 	13 x 13 100 Pins 	13 x 13 101 Pins 
PX - 13 - 098 - EXX	PX - 13 - 100 - EXX	PX - 13A 100 - EXX	PX - 13 - 101 - EXX
13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

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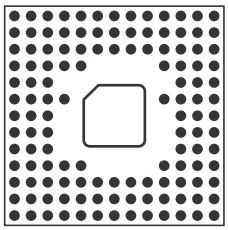
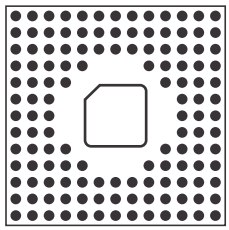
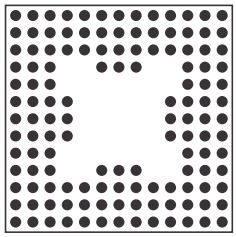
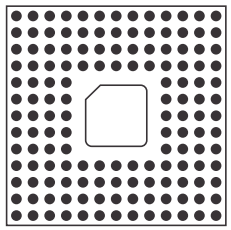
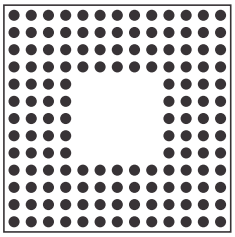
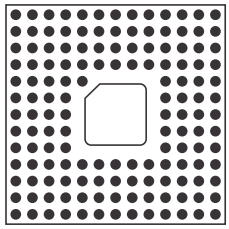
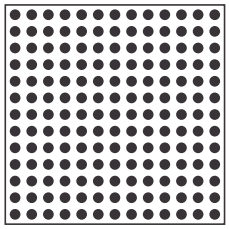
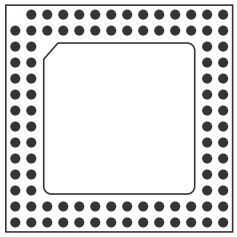
13 x 13 128 Pins 	13 x 13 132 Pins 	13 x 13 132 Pins 	13 x 13 144 Pins 
PX - 13 - 128 - CXX	PX - 13 - 132 - CXX	PX - 13 - 132 - AXX	PX - 13 - 144 - CXX
13 x 13 144 Pins 	13 x 13 145 Pins 	13 x 13 169 Pins 	14 x 14 95 Pins 
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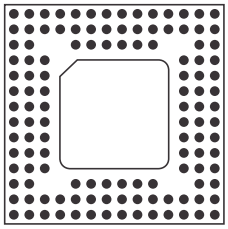
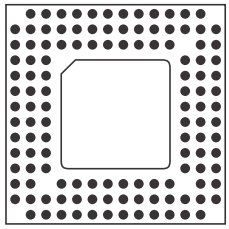
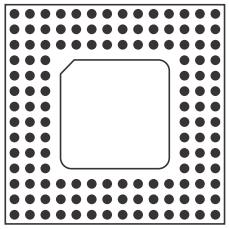
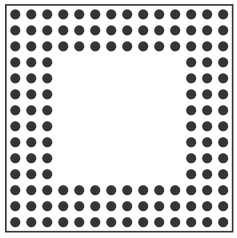
14 x 14 124 Pins 	14 x 14 125 Pins 	14 x 14 132 Pins 	14 x 14 132 Pins 
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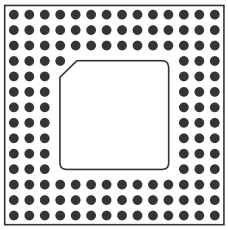
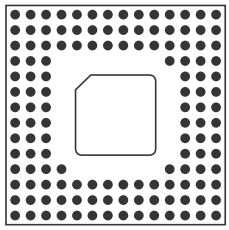
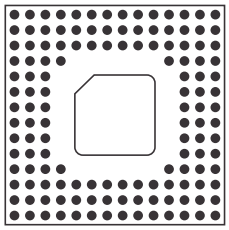
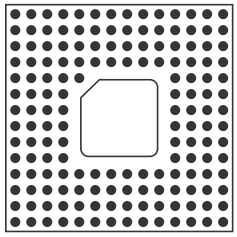
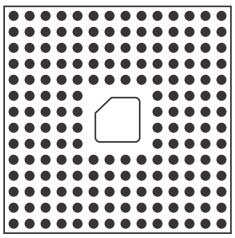
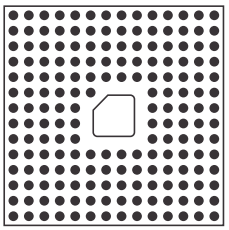
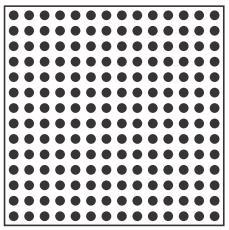
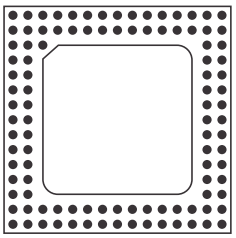
14 x 14 133 Pins 	14 x 14 135 Pins 	14 x 14 136 Pins 	14 x 14 161 Pins 
PX - 14 - 133 - FXX	PX - 14 - 135 - DXX	PX - 14 - 136 - DXX	PX - 14 - 161 - DXX

PIN GRID ARRAY SOCKETS
STANDARD FOOT PRINTS

SERIES PGA

14 x 14 180 Pins 	14 x 14 181 Pins 	14 x 14 196 Pins 	15 x 15 105 Pins 
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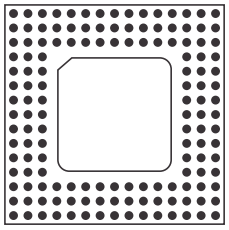
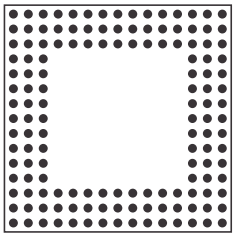
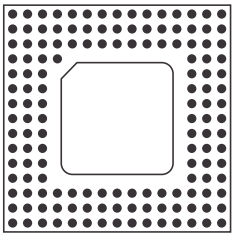
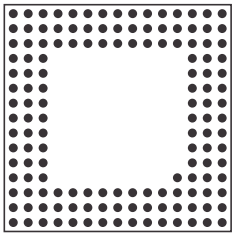
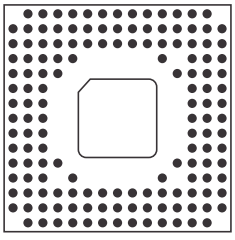
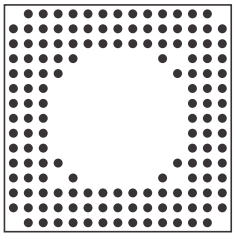
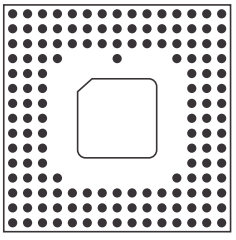
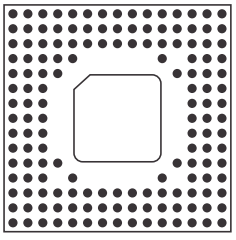
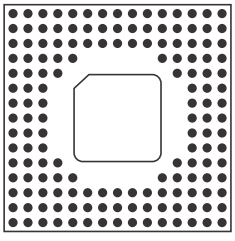
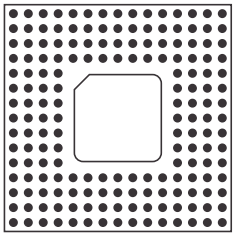
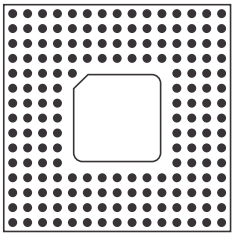
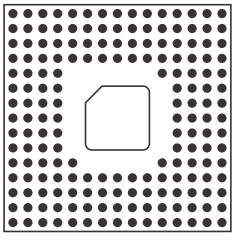
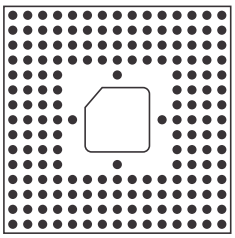
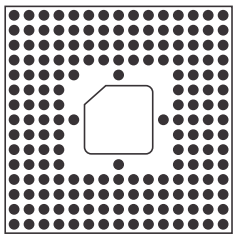
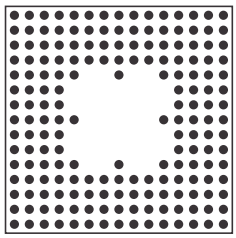
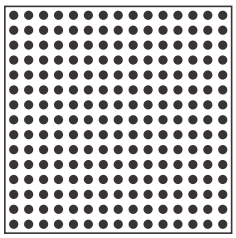
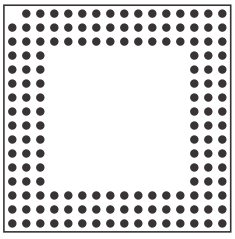
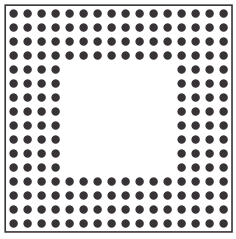
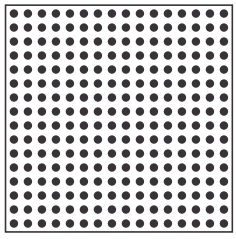
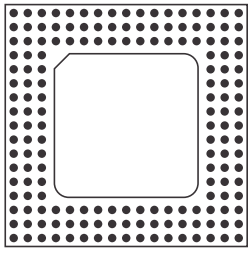
15 x 15 144 Pins 	15 x 15 144 Pins 	15 x 15 145 Pins 	15 x 15 145 Pins 
PX - 15 - 144 - GXX	PX - 15 - 144 - AXX	PX - 15 - 145 - GXX	PX - 15 - 145 - AXX
15 x 15 149 Pins 	15 x 15 149 Pins 	15 x 15 149 Pins 	15 x 15 153 Pins 
PX - 15A 149 - EXX	PX - 15 - 149 - AXX	PX - 15 - 149 - EXX	PX - 15 - 153 - EXX
15 x 15 156 Pins 	15 x 15 176 Pins 	15 x 15 177 Pins 	15 x 15 179 Pins 
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

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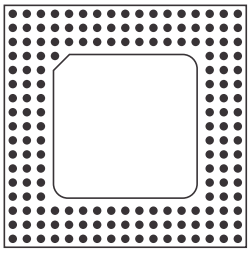
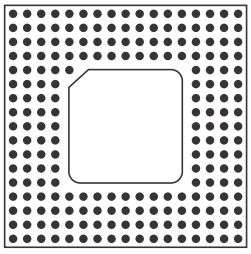
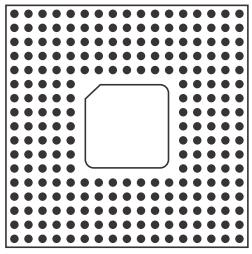
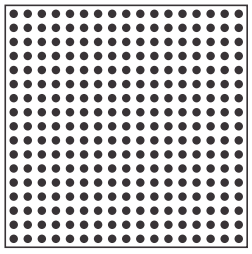
17 x 17 169 Pins 	17 x 17 209 Pins 	17 x 17 240 Pins 	17 x 17 289 Pins 
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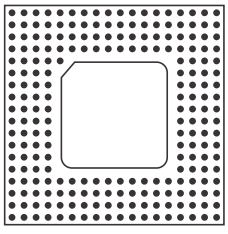
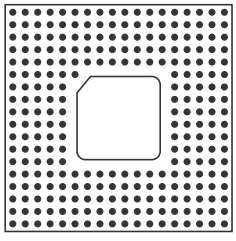
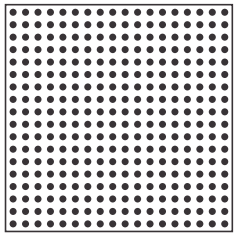
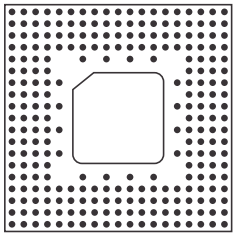
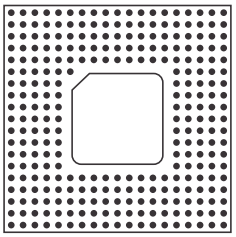
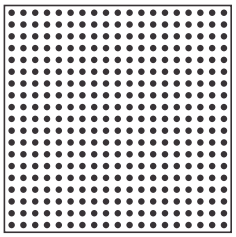
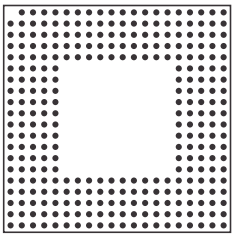
18 x 18 225 Pins 	18 x 18 261 Pins 	18 x 18 324 Pins 	19 x 19 256 Pins 
PX - 18 - 225 - HXX	PX - 18 - 261 - FXX	PX - 18 - 324 - AXX	PX - 19 - 256 - GXX

PROTECTRON

PIN GRID ARRAY SOCKETS
STANDARD FOOT PRINTS

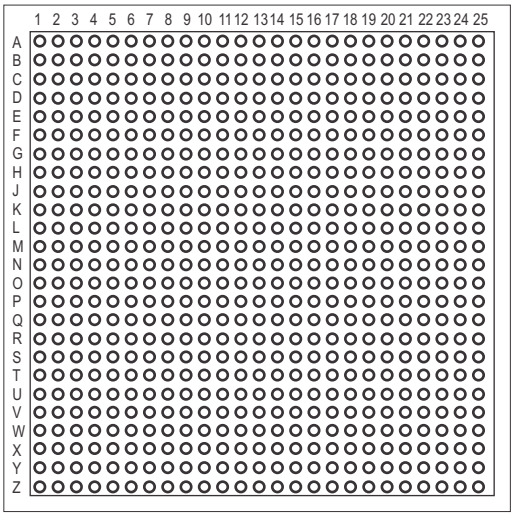
SERIES PGA

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	

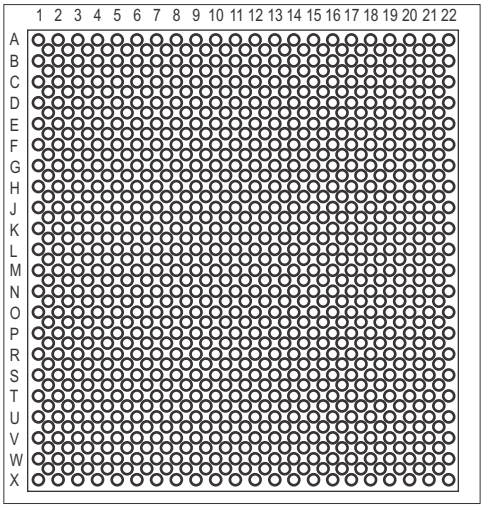
PIN GRID ARRAY SOCKETS

CUSTOM GRID DESIGN

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



TOP VIEW



YOUR ADDRESS

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ORDERING INFORMATION

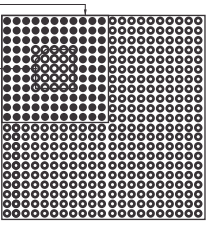
1. Type of PGA

2. Type of Pin

3. Plating — Insulator

4. Size of body — X

Example :
Fill in the Position of pins
Mark of the window



TECHNICAL SPECIFICATIONS FOR PLCC SOCKETS

Connector Parts	Materials & Finishes
Insulator Body	Polyphenyledene 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.