

E-tec is now the leading BGA socket manufacturer.

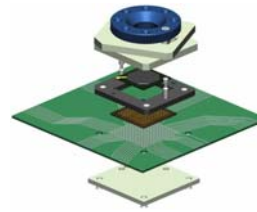
These elastomer interposer sockets are available for any chip size and pitch. The standard version is the solderless socket style, which is attached with 2 or 4 screws to the PCB. SMT and thru-hole adapter sockets are available in certain pitches (contact factory for availability first) with these elastomer interposers to allow using this high frequency interposer on PCB's which have already been laid out for SMT or thru-hole sockets. The retainer can be delivered with a center opening for die access and the socket outline will be kept to a minimum and special clearances can be offered to avoid components on the PCB.

We aim to solve your requirements - your custom sets our standards!

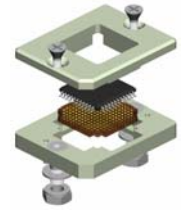
Please note, we will always request the chip data to ensure we offer a compatible socket.

BGA/LGA/QFN Chip Socket

GullWing Chip Socket



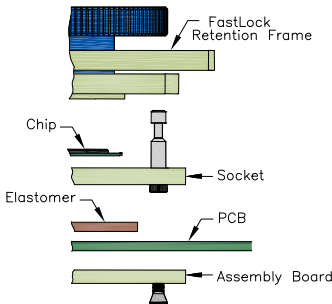
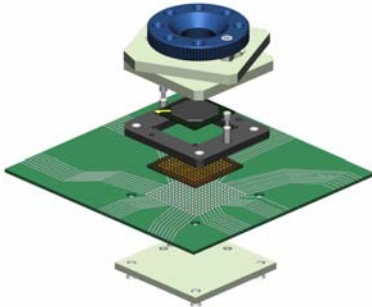
FastLock Type



ScrewLock Type

**Solderless Compression style
Standard Version**

(FastLock Type as example only –
other locking systems available also)



gold plated pads Ø 0,70mm/.027" if pitch 1,27mm
gold plated pads Ø 0,60mm/.024" if pitch 1,00mm
gold plated pads Ø 0,50mm/.020" if pitch 0,80mm
gold plated pads Ø 0,45mm/.018" if pitch 0,75mm
gold plated pads Ø 0,40mm/.016" if pitch 0,65mm
gold plated pads Ø 0,30mm/.012" if pitch 0,50mm

Important Note:

PCB pad height: same or higher than solder mask.
PCB thickness: 1.60mm std. (others: contact E-tec)

Elastomer Specifications

Flammability UL 94V-0
Current rating at minimum 0.10mm compression depends on solderball size:

0.30mm dia balls 1A min.
0.60mm dia balls 2A min.
Insulation resistance : 1000 MΩ
Contact resistance : < 50 mΩ
Capacitance : < 0.3 pF
Inductance : < 0.6 nH
Breakdown voltage : 500V DC
Operating temperature : -35°C to +125°C

Bandwidth

0.50mm thick elastomer sinusoidal signals : -1dB at >10 GHz
digital signals: 10 GHz min.
1.00mm thick elastomer sinusoidal signals: -1dB at >10 GHz
digital signals: up to 6.5GHz max.

Recommended Compression:**Compression forces**

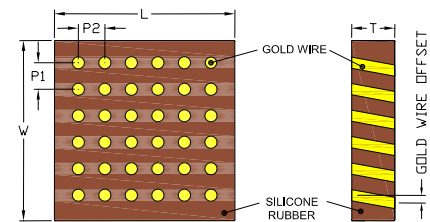
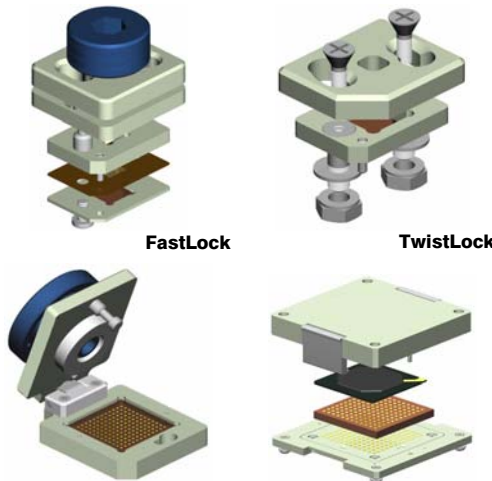
0.50mm thick elastomer Solderball diameters
0.50mm = 40 to 50gf @0.20mm
0.60mm = 60 to 80gf @0.20mm
0.75mm = 90 to 120gf @0.20mm
1.00mm thick elastomer Solderball diameters
0.50mm = 40 to 50gf @0.20mm
0.60mm = 50 to 70gf @0.20mm
0.75mm = 90 to 120gf @0.20mm

Mechanical data

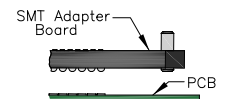
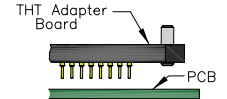
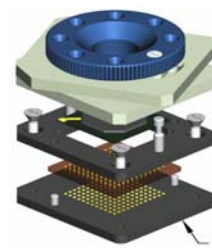
Elastomer life BGA chips : 1'000 cycles min.
LGA/QFN chips : 10'000 cycles min.

Dimensions & Tolerances

Pitch of wires P1 & P2 = 0.05mm x 0.05mm to 0.10mm x 0.10mm
(depending on pitch of chip)
Thickness/Offset T = 0.50mm (±0.05mm)/Offset = 0.25mm (±0.05mm)
T = 1.00mm (±0.07mm)/Offset = 0.50mm (±0.07mm)
Width/Length min. = 3.00mm x 3.00mm (±0.50mm)
max. = 49.00mm x 49.00mm (±0.50mm)

**Locking systems overview (not exhaustive)****"Economy" ClamShell****QuickLock****Special Elastomer Adapters (on request)****SMT and THT (Soldertail) Adapter Style
on request**

(FastLock Type as example only – other locking systems available also)

**Recommendations for SMT Adapter Boards**

Solder paste Please use a solder paste w/o any silver!
Solder profile Please refer to our website www.e-tec.com

How to order

E X X x x x x - x x x x - x x X X x x L ← locating pegs

Device Type

B = BGA
L = LGA/QFN
G = GullWing

Locking Type

W = TwistLock
F = FastLock
Q = QuickLock
E = ClamShell "Economy" Type
for BGA/LGA/QFN
For GullWing type contact factory.
Lifetime: TwistLock 1K cycles min.
all others 10K cycles min.

Nbr of contacts

999
if LGA or QFN
Ball count
if BGA

Elastomer or Pitch

will be given by
the factory after
receipt of the
chip datasheet

Grid Code

will be given by the factory
after receipt of the chip
datasheet

Config Code**Plating**

55 = gold
if with adapterboard
95 = tin/gold
(tin leadfree)

Contact Type

90 = Solderless Compression Type; 6.5 GHz performance
91 = Solderless Compression Type; 10 GHz performance
others on request
Solder Adapters (on request only):
30 = SMT..... (with surface mount Adapterboard)
70 = THT..... (with soldertail Adapterboard)