

Ball / Land Grid Array Sockets

Solderless Compression Type



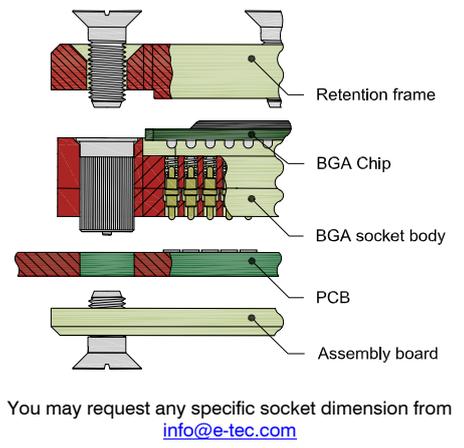
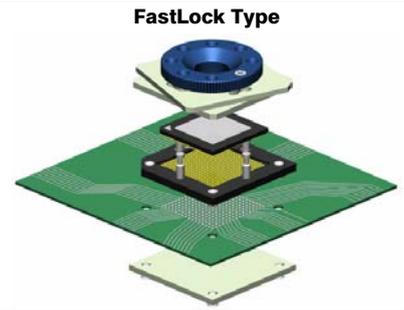
E-tec is now the leading BGA socket manufacturer and offers a solderless socket where board to chip contact is made without the need to solder.

EP patents 0829188, 0897655 US patents 6190181, 6249440 Patented in other countries.

Solderless compression type sockets are available for any chip size and grid pattern.

The solderless socket is easily mounted to the PCB with 4 through hole mounting pegs. The assembly board ensures perfect coplanarity of the socket. Contact reliability is guaranteed with spring loaded gold plated contacts, which are pressed onto gold plated PCB pads. Solderless compression type sockets are available with FastLock, TwistLock, "Economy" ClamShell, QuickLock, LeverLock and "Professional" ClamShell retention systems. We aim to solve your requirements - many different terminals and configurations are available. Your custom sets our standards!

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



Recommendations:

PCB layout gold plated pads:
 Ø 0,70mm/.027" if pitch 1,27mm
 Ø 0,60mm/.024" if pitch 1,00mm
 Ø 0,50mm/.020" if pitch 0,80mm
 Ø 0,45mm/.018" if pitch 0,75mm
 Ø 0,40mm/.016" if pitch 0,65mm
 Ø 0,35mm/.012" if pitch 0,50mm
 Ø 0,25mm/.010" if pitch 0,40mm

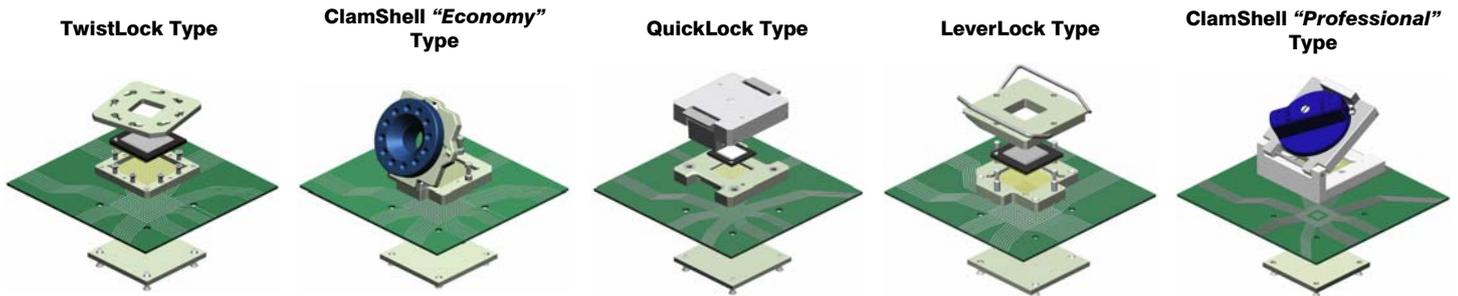
PCB thickness:
 E-tec solderless sockets are adapted to a standard PCB thickness of 1.60mm.
 For a different PCB thickness, please inform E-tec first!

Important Note:
 Please check the ball diameters & heights of your chip prior to ordering the standard E-tec BGA (BPW) sockets. Any deviation has to be communicated to E-tec in order to check compatibility with the standard socket design and if necessary to obtain a special order code adapted to your chip dimensions.
 The standard solderball diameters & heights are the following:

Pitch	ball diameters min/max	ball height min/max
0.50mm	0.25mm / 0.35mm	0.20mm / 0.30mm
0.65mm	0.25mm / 0.45mm	0.20mm / 0.30mm
0.75mm	0.25mm / 0.45mm	0.20mm / 0.40mm
0.80mm	0.40mm / 0.55mm	0.25mm / 0.45mm
1.00mm	0.50mm / 0.70mm	0.30mm / 0.50mm
1.27mm & higher	0.60mm / 1.00mm	0.50mm / 1.00mm

If the minimum ball diameter of a given chip falls below the above indications, then a BUW socket will generally be proposed.

You may request any specific socket dimension from info@e-tec.com



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Specifications

Mechanical data		Electrical data	
Contact life	10.000 cycles min.	Contact resistance	< 100 mΩ
Retention System life	TwistLock & LeverLock 1.000 cycles min. Fast-, QuickLock & ClamShell 10.000 cycles min.	Current rating	500 mA max.
Individual contact force	40 grams max.	Insulation resistance at 500V DC	100 MΩ if 0.50 to 0.80mm pitch 500 MΩ 1.00mm pitch upwards
Material		Breakdown voltage at 60 Hz	500V min.
Insulator (RoHS compliant)	High temp plastic or epoxy FR4	Capacitance	< 1 pF
Terminal (RoHS compliant)	Brass	Inductance	< 2 nH
Contact (RoHS compliant)	BeCu	Operating temperature	-55°C to +125°C ; 260°C for 60 sec.

How to order

X X W X X X X - X X X X - X X X X 55 L

Device Type B = Ball Grid L = Land Grid C = Column Grid	Socket Type P = socket for LGA, CGA and BGA chips with std diameter solderballs in 0.80mm pitch or higher (see dimensions in table above) U = socket for BGA chips with small diameter solderballs and for all chips with a pitch of 0.75mm or lower	Pitch 04 = 0,40mm 10 = 1,00mm 05 = 0,50mm 12 = 1,27mm 06 = 0,65mm 15 = 1,50mm 07 = 0,75mm 08 = 0,80mm <i>others on request</i>	Grid Code Config Code <i>will be given by the factory after receipt of the chip datasheet</i>	Plating 55 = gold
Locking Type F = FastLock C = ClamShell "Professional" Type E = ClamShell "Economy" Type	Q = QuickLock W = TwistLock Z = LeverLock	Nbr of contacts <i>depends on ballcount of chip</i>	Option 90 = standard probes up to 3 GHz 91 = high speed probes exceeding 10 GHz	