

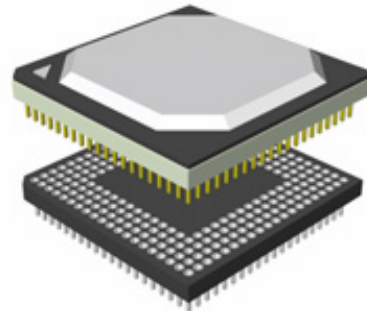
## Mini Grid Socket



The E-tec BGA Adapter System comprises two elements, the BGA solder adapter (see Part I) and the Mini Grid Socket shown on this page. The Mini Grid Socket is soldered to the target board and is designed to accept the BGA Solder Adapter (where the chip is soldered to the adapter board). As an alternative, this Mini Grid Socket is also designed to accept the „true“ through hole BGA Sockets (where the chips can be socketed without soldering).

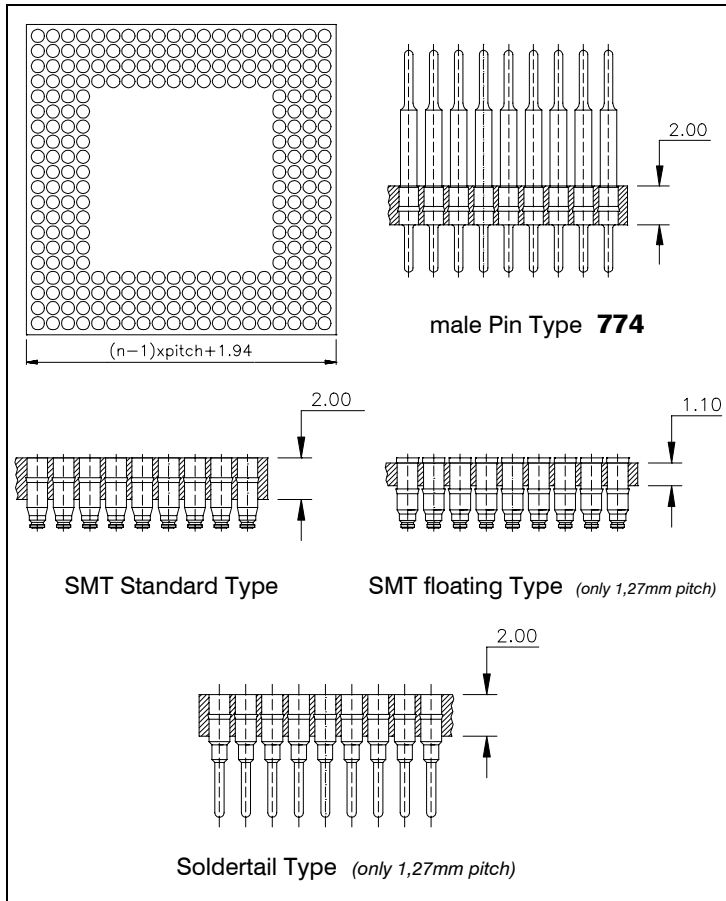
E-tec offers any pin-out, configuration and grid size.

Special terminal designs are possible on request.



Solder Adapter  
with BGA Chip

Mini Grid Socket



| Terminal styles                                                                                |                                                                                          |                                                                              |                                                                                    |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <br><b>SMT Terminal</b><br><b>Type 119</b><br><i>if 1,27 ; 1,50 &amp; 2,00mm pitch</i>         | <br><b>SMT „floating“</b><br><b>Type 120</b><br><i>if 1,27 ; 1,50 &amp; 2,00mm pitch</i> | <br><b>SMT Terminal</b><br><b>Type 167</b><br><i>if 1,00mm pitch</i>         | <br><b>SMT Terminal</b><br><b>Type 169</b><br><i>if 0,80mm pitch</i>               |
| <br><b>Solder tail Terminal</b><br><b>Type 117</b><br><i>if 1,27 ; 1,50 &amp; 2,00mm pitch</i> | <br><b>Solder tail Terminal</b><br><b>Type 172</b><br><i>if 1,00mm pitch</i>             | <br><b>Solder tail Terminal</b><br><b>Type 174</b><br><i>if 0,80mm pitch</i> | <br><b>male pin</b><br><b>Type 774</b><br><i>if 1,27 ; 1,50 &amp; 2,00mm pitch</i> |

| Specifications     |                                        |                                          |                                                              |
|--------------------|----------------------------------------|------------------------------------------|--------------------------------------------------------------|
| Terminal Type      | Material                               | Plating                                  | Socket & Adapter Material                                    |
| 774                | CuZn                                   | Au over Ni over Cu                       | FR 4 glass Epoxy UL 94V-0                                    |
| 117, 119, 120, 167 | Terminal : CuZn<br>Contact clip : BeCu | Sn over Ni over Cu<br>Au over Ni over Cu |                                                              |
|                    |                                        |                                          | Others                                                       |
|                    |                                        |                                          | Operating Temperature<br>-55°C to +125°C ; 260°C for 60 sec. |

## How to order

## Mini Grid Socket

MGS xxxx - E xxx - xx X 95 xx

| Nbr of contacts/balls | Terminal styles                                                                                                                                                                                                                           | Grid size                                                                                                                                           | Config Code | Plating                                                                                       | Pitch of Grid Array                                                                                                             |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| as per device         | Please refer to the drawings shown above.<br><b>Note:</b><br>If the Mini-Grid sockets are used as a PGA Socket, i.e. for socketing 1.27mm pitch PGA chips (instead of BGA Adapter) then the 1.00mm Terminals 167 & 172 need to be chosen. | <b>will be given by the factory after receipt of the chip datasheet.</b><br><br><b>If Mini-Grid Sockets for PGA requested pls. refer to page 45</b> |             | <b>95</b> = tin/gold (tin leadfree)<br><br>for male pin -774 plating gold only<br>= <b>55</b> | <b>08</b> = 0.80mm<br><b>10</b> = 1.00mm<br><b>12</b> = 1.27mm<br><b>15</b> = 1.50mm<br><b>20</b> = 2.00mm<br>others on request |