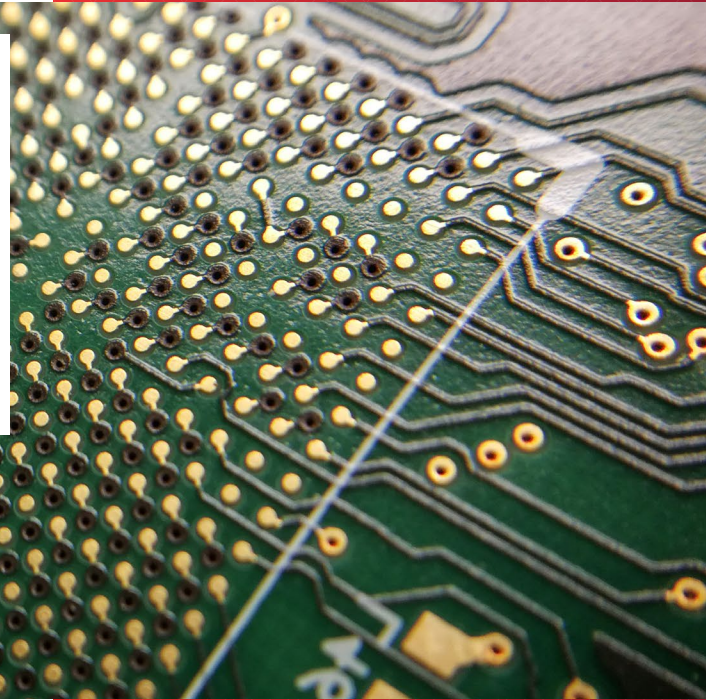


## BGA Balling Services

With the increase in popularity of Ball Grid Array packages in many electronic applications, QP Technologies is addressing the need for prototype BGA devices. To complement our existing assembly processes, QP Technologies has added BGA sphere-attach services.



### Capabilities:

- Initial BGA and  $\mu$ BGA balling
- BGA Repair / Rework
- Substrate sizes up to 44mm square
- Sphere sizes from Change to 0.100" and 0.300"
- SnPb or Pb-free spheres
- Same-day service available
- Cleanroom environment
- Outstanding quality and customer service

QP Technologies can attach spheres, in sizes ranging from 0.010" to 0.030" (0.25 to 0.76mm), to substrates as large as 44mm square. This balling service is applicable to new laminate or ceramic substrates as well as for rework of existing packages.

QP Technologies offers spheres in the following SnPb and Pb-free alloys:

- 63.0 Sn / 37.0 Pb
- 96.5 Sn / 3.5 Ag
- 96.5 Sn / 3.0 Ag / 0.5 Cu

BGA balling is offered as an individual service, or can be combined with QP Technologies' other assembly services.

### Quik-Turn Service

When you need to meet a project or customer deadline, you can count on QP Technologies' reliable on-time delivery options, including same-day expedited service. In fact, we can receive a wafer in the morning and ship completely assembled BGA devices by the end of the day.

