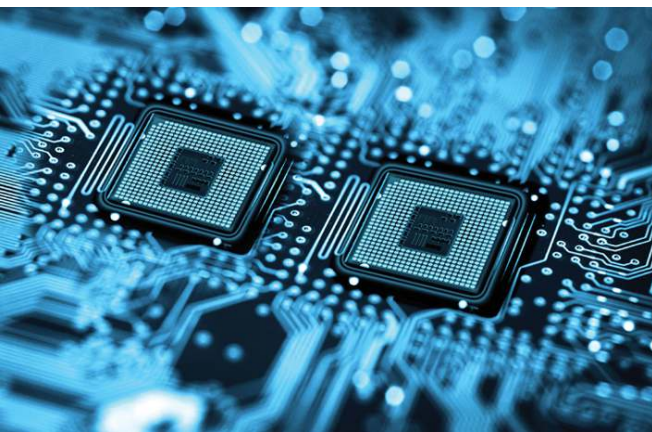


ELECTRONICS

As electronics becomes ever more complex and miniaturised by the electronics industry, quality, price and efficient production processes are vital. It has become a generally accepted practice in the electronic assembly industry to use inert nitrogen gas in the production environment during soldering processes.

Advantages

- Lower dross production
- Increasing quality of joints
- Less rework
- Reducing oxidation
- Less cleaning/maintenance
- Improving wettability
- Reduced defects/improved design



Reflow Soldering

As surface mount has largely overtaken through-hole technology, reflow soldering is the most common method of attaching surface mount components to a circuit board. The soldering processes take place in a reflow oven which melts the applied solder paste without damage to the components.

When nitrogen is added through the entire process joint integrity is improved by the elimination of oxidization. Advantages of using Onsite Nitrogen Generation in the soldering process ensures that there is better 'wetting', less dross, fewer voids with the benefits of less errors, minimal use of fluxes and less or no rejects



Wave Soldering

Wave Soldering is the automated technique employed in large scale production of printed circuit boards (PCB's) when electronic components are soldered into a printed circuit board (PCB) to form an electronic assembly using primarily through-hole technology. The component loaded PCB is passed over a wave of molten solder where the joints are soldered into place.

Efficient mechanical and electrical connection of components is essential to the correct working of the PCB - joint integrity is crucial. Carrying out the soldering process in an inert nitrogen environment reduces oxidization and significantly improves the quality of the soldered joints.

