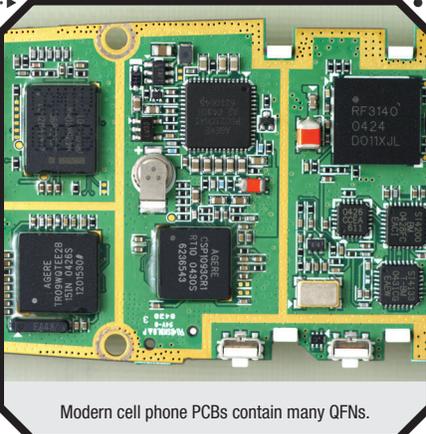


# WHY NP560 SOLDER PASTE?

NP560 consistently delivers paste transfer efficiencies of 0.50 to 0.55 AR and is fully capable of printing and reflowing 01005 components, even in air, with minimal graping behavior. In addition to its stable, consistent product performance, NP560 has redefined the voiding standard for PCB assembly and has the potential for low voiding performance.



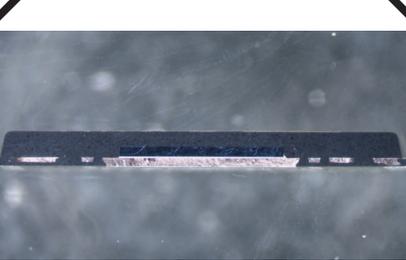
Voiding in solder joints is caused by entrapped gases during the soldering process. When the solder joint is a QFN (Quad Flat No lead) thermal pad, excessive voiding can lead to poor thermal conductivity. Today's electronics are designed to work at increasingly faster speeds which creates higher operating temperatures. If this heat cannot be dissipated efficiently, these components may burn themselves up. After the device would burn out, it will be defective to the user.



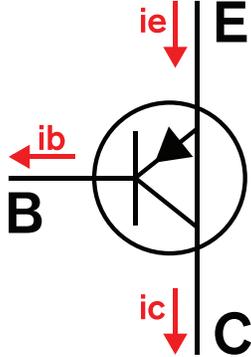
Modern cell phone PCBs contain many QFNs.



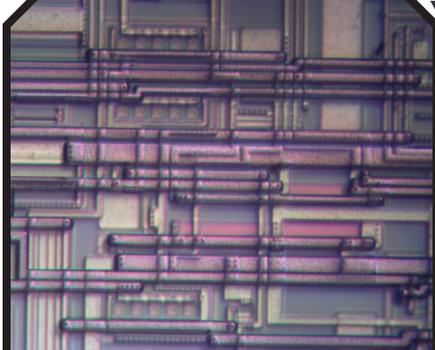
QFNs vary in size and number of pins.



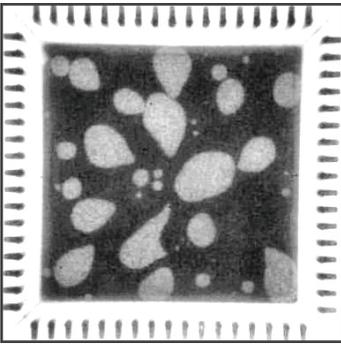
Featured is a cross-sectional view of non NP560 paste used allowing the heat generated by electrons within the transistor lines not to be transferred adequately causing the failure. The integrated circuit within this QFN (center of cross section) is attached to the thermal pad, which conducts heat away from the device.



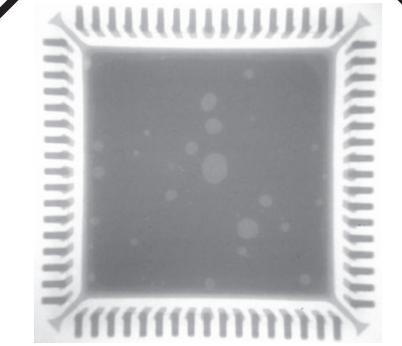
Current flow through each transistor generates heat.



Close-up view of the surface of an integrated circuit and individual transistors. Transistor count of integrated circuits doubles every two years (Moore's Law).



A high voiding rate reduces the ability for heat to dissipate from the QFN.



The low voiding of NP560 will maximize heat transfer from the QFN.



NP560 allows Kester to offer a product that meets customer's low voiding under QFN requirements (<10%) across different QFN sizes. This guarantees that the electronics such as laptops, cell phones and medical equipment will be reliable when you need them to be.