CERAMIC CIRCUIT BOARDS

FEATURES
• 96% alumina ceramic
• -100°C to + 500°C operating range
• Power plane and ground plane
• Any style I/O
• Any shape board
• Any thickness
• Any number of layers
• Replaceable sub-assemblies for BIBs

CSP produces custom designed printed circuit boards (PCBs) and burn-in boards (BIBs) for use at elevated temperature. Possessing an operating range far in excess of standard printed circuit boards, our circuit boards can operate at temperatures up to 500°C. The longevity and operating range of these boards pays for the initial higher cost many times over. Our boards can be supplied in a single layer format or in multi-layer configurations with very little limit on the number of layers. Any configuration required is producible including matched impedance lines.
While the vast majority of ceramic PCBs and BIBs are used in the electronics industry due to temperature concerns, there are other reasons for their use. When we speak of heat it conjures up pictures of very high temperatures, however very low temperatures are also handled by our ceramic boards. Temperatures approaching absolute zero (-273°C) can be reached using ceramic PCBs.

In addition to temperature concerns are the PCBs mechanical requirements. Ceramic probe-cards for testing semiconductors benefit from the mechanical strength and dimensional stability of ceramic. The low coefficient of expansion and the high rigidity aid in testing semiconductor wafers by reducing deflection and dimensional changes to near zero, regardless of low, ambient or high temperatures.