



Thick Film Hybrid Circuits are a specialised microcircuit technology that can be used as an alternative to Printed Circuit Boards (PCB's). The inherent properties of thick film hybrids are high precision, exceptional compactness, reliability in difficult environments, security against reverse engineering and cost competitiveness.

## Benefits of Hybrids over PCB's

**Size** - A hybrid can be half the size of the most complex PCB.

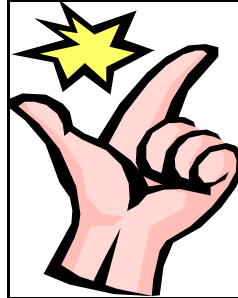
**Precision** - Resistors are printed and laser trimmed (even after final assembly) on hybrids to any value and can be more precise than PCB surface mounted resistors.

**Security** - Encapsulation secures your circuit from prying competitors and reverse engineering.

**Encapsulation** - Hence tolerant to moisture, corrosion and vibration. In difficult environments PCB's require a hermetic box, hybrid's do not.

**Wide temperature range & power dissipation** - This is due to the high temperature performance and thermal conductivity of the ceramic substrate.

## Is This You?



One of our customers had a crisis on their hands. They urgently required a precision power supply resistor network with current shunt. Their overseas supplier could not deliver. Hybrid Electronics designed, prototyped and assembled 1000 hybrid resistor networks within a week. The hybrid gave very precise, absolute value and ratio resistors. Resistors printed were as low as 0.3 Ohms with matching as close as 0.1%. Hybrid Electronics average time from circuit design to assembly is 2-3 weeks. Buying locally saves you time (as well as dollars).

## Baggage X-Ray Machines



One of our overseas customers is using thick film hybrids for x-ray detector amplifiers in baggage x-ray machines at airports. Many hybrids are used in the baggage machines. The benefit of the thick film hybrids is in the versatility of resistor performance and the operating environment range of the ceramic substrate. Hybrid Electronics have achieved price savings and quality improvement over international competitors and is working with the customer on other hybrid circuit projects.