

## Thermal Conductive Board – TCB-3

### Product Description

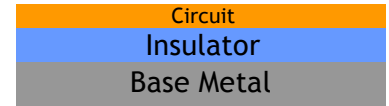
Thermal Conductive Board (TCB), or Insulated Metal Substrate (IMS), provides the advantages of high thermal conductivity, reliability, and thermal resistance. TCB is a sandwich structure, which includes layers of copper foil, insulator, and base metal. The insulator is made by a unique polymer composite that combine epoxy resin and high thermal conductivity filler, and the thermal conductivity is much higher than the traditional epoxy filled glass fiber system.

### Features

- Excellent thermal conductivity
- Customized substrate structure available
- Excellent solder resistance
- Excellent reliability
- RoHS Complaint
- Excellent reliability
- Over 15 Patents

### Specifications

Characteristics	TCB-3
Panel Size [mm]	500 x 600, or etc.
Base Metal [mm]	1.0, 1.5, 2.0, or etc.
Dielectric Layer thickness [ $\mu\text{m}$ ]	50, 80, 100, 150, or etc.
Circuit [oz]	1, 2, 3, or etc.



### General Properties

Characteristics	TCB-3	Test Method
Thermal resistance [ $^{\circ}\text{C}/\text{W}$ , 100 $\mu\text{m}$ ]	<0.12	ASTM D5470
Flammability	V-0	UL 94
Hi-pot withstand [AC KV/mm]	>30	IPC-TM-650 2.5.7
Peeling strength [Kg/cm]	>1.4	JIS C 6481
Solder heat resistance, 260 $^{\circ}\text{C}$ [mins]	>60	
Dielectric constant	5.1	IPC-TM-650 2.5.5.1
Surface resistance [ $\Omega$ ]	> $10^{15}$	IPC-TM-650 2.5.17.1
Volume resistance [ $\Omega \cdot \text{cm}$ ]	> $10^{13}$	IPC-TM-650 2.5.17.1
Glass transition temperature [ $^{\circ}\text{C}$ ]	140	IPC-TM-650 2.4.25