

Thermal Conductive Board

Product Description

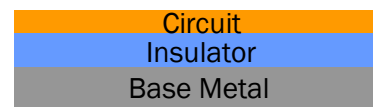
Thermal Conductive Board (TCB), or Insulated Metal Substrate (IMS), provides the advantages of high thermal conductivity, reliability and thermal resistance. TCB is a sandwich structure, which includes layers of copper foil, insulator, and base metal. The insulator is made by a unique polymer composite that combine epoxy resin and high thermal conductivity filler, and the thermal conductivity is about 5 times higher than the traditional epoxy filled glass fiber system.

Features

- Excellent thermal conductivity
- Customized substrate structure available
- Excellent solder resistance
- Excellent reliability
- RoHS Complaint
- UL No: E312082
- Over 15 Patents

Specifications

Characteristics	TCB-2
Panel Size [mm]	405 x 510, 405 x 610
Base Metal [mm]	0.2, 1.0, 1.5, 2.0
Insulator thickness [μm]	80, 100, 150*
Circuit [oz]	1, 2, 3



*Under certification

Properties

Characteristics	TCB-2	Test Method
Thermal conductivity [W/m-K]	2.7	ASTM D5470
Flammability	V-0	UL94
Break down voltage [AC KV]	5	JIS C 2110
Peeling strength [N/cm]	19	JIS C 6481
Solder heat resistance, 260°C [mins]	>60	
Thermal resistance, TMA, T260 [mins]	>60	IPC-TM-650 2.4.24.1
Dielectric constant	4.5~5.0	IPC-TM-650 2.5.5.1
Surface resistance [Ω]	>1 x 10 ¹⁶	IPC-TM-650 2.5.17.1
Volume resistance [$\Omega \cdot \text{cm}$]	>1 x 10 ¹⁵	IPC-TM-650 2.5.17.1
Glass transition temperature [°C]	135	IPC-TM-650 2.4.25