

TG-CPCB2-LI98-0.15

Ceramic PCB with thermally conductive adhesive tape

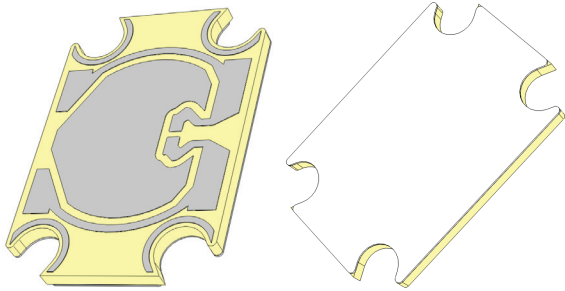


Features

- Patterned according to standard LED configurations
- Supplied with thermally conductive adhesive tape for ease of mounting
- Superior thermal management compared to FR4 and IMPCB
- Reduced cost of ownership
- Reduced manufacturing complexity

Applications

t-Global's range of ceramic circuit boards are designed for use with Philip's Luxeon range of LEDs. The correct patterning for these LEDs has been applied on the surface of each board for ease of manufacture.



TG-CPCB2 Properties

| TG-CPCB2 Property | Functional Characteristics |
|----------------------|--------------------------------|
| Substrate | Al ₂ O ₃ |
| Thermal Conductivity | 24 W/m-k |
| Thickness | 1.15mm |
| Metal Plate Stack Up | Cu 30 microns, Au 0.2 microns |

Li-98 Properties

| Property | Li-98 | Unit | Test Method |
|---|-----------------|-------------------|-------------|
| Thickness | 0.15 | - | ASTM D374 |
| Colour | White | - | Visual |
| Reinforcement carrier | Fibreglass mesh | - | - |
| Density | 1.85 | g/cm ³ | ASTM D792 |
| Tensile strength | 200 | psi | ASTM D412 |
| Glass transition temperature | -30 | °C | - |
| Short time use temperature (30sec) | 200 | °C | - |
| Continuous working temperature | -30 to 120 | °C | - |
| Thermal conductivity | 0.95 | W/mK | ASTM D5470 |
| Thermal impedance @ <1psi | 1.0 | C in 2/W | ASTM D5470 |
| Thermal impedance @ 50psi | 0.9 | C in 2/W | ASTM D5470 |
| Initial tack | 11 | cm | PSTC-6 |
| Lap shear strength | 61 | N/cm ² | ASTM D1002 |
| Die shear strength @ 25 °C | 120 | N/cm ² | - |
| Die shear strength @ 80 °C | 69 | N/cm ² | - |
| Holding power 1000g @ 25 °C using 1 in ² | >10000 | min | PSTC-7 |
| Holding power 1000g @ 80 °C using 1 in ² | >10000 | min | PSTC-7 |
| 180° peeling strength (aluminium) | 4 | N/cm | ASTM D3330 |
| Dielectric breakdown voltage (Vac) | >2 | kV | ASTM D149 |
| Dielectric breakdown voltage (Vdc) | >3 | kV | ASTM D149 |