



High Tg / Upper Mid Loss / Halogen Free

EM-370(D) / EM-37B(D)

- Standard FR-4 Dk and lower Df
- Z-axis CTE 2.2% (50~260 °C)
- Low moisture absorption and excellent CAF resistance
- For high performance server, network and telecom application

Basic Laminate Property

| Property | Item | | IPC-TM-650 | Test Condition | Unit | Typical Value |
|---------------------|------------------------|----------|------------------|---------------------------------------|------------------|-------------------|
| Thermal | Tg | | 2.4.25 | DSC | °C | 175 |
| | | | 2.4.24 | TMA | °C | 170 |
| | | | 2.4.24.4 | DMA | °C | 195 |
| | CTE, X/Y-axis | | 2.4.24.5 | < Tg, TMA | ppm/°C | 12/15 |
| | CTE, Z-axis | | 2.4.24 | < Tg, TMA | ppm/°C | 40 |
| | | | | > Tg, TMA | ppm/°C | 200 |
| | Z-axis Expansion | | 2.4.24 | 50~260°C | % | 2.2 |
| | Td | | 2.4.24.6 | TGA (5% W.L) | °C | 385 |
| T288 | | 2.4.24.1 | Clad | Min | >60 | |
| | | | Etched | Min | >60 | |
| Electrical | Dk (R/C: 50%) | 1 GHz | 2.5.5.9 | C-24/23/50 | - | 4.1 |
| | | 10 GHz | Cavity Resonator | | - | 4.0 |
| | Df (R/C: 50%) | 1 GHz | 2.5.5.9 | C-24/23/50 | - | 0.011 |
| | | 10 GHz | Cavity Resonator | | - | 0.015 |
| | Volume Resistivity | | 2.5.17.1 | C-96/35/90 | MΩ-cm | >10 ¹⁰ |
| Surface Resistivity | | 2.5.17.1 | C-96/35/90 | MΩ | >10 ⁹ | |
| Physical | Water Absorption | | 2.6.2.1 | E-1/105+D-24/23 | % | 0.10 |
| | Peel Strength (HTE) | 0.5 oz | 2.4.8 | As Received (After thermal stress) | lb/in | 5.5 (5.5) |
| | | 1.0 oz | | | | 6.5 (6.5) |
| | Peel Strength (RTF) | 0.5 oz | 2.4.8 | As Received (After thermal stress) | lb/in | 4.5 (4.5) |
| | | 1.0 oz | | | | 5.0 (5.0) |
| | Flexural Strength | Warp | 2.4.4 | As Received | MPa | 460~500 |
| Fill | | MPa | | | 420~440 | |
| Flame Resistance | | UL-94 | A & E-24/125 | - | V-0 | |