



IT-988G

High Tg / Lead Free / Ultra Low Loss Laminate & Prepreg

- 100G / 400G Solution
- Lower Dk (<3.63 @ 10GHz) and Ultra low Df (<0.0029 @ 10GHz)
- Very Stable dk-df across frequency
- Advanced High Tg Resin Technology

Laminate properties

| Items | IPC TM-650 | Typical Value | Unit |
|---|------------|---|-----------------------|
| Peel Strength, minimum A. 0.5 oz Very low copper roughness | 2.4.8 | 2.9 – 3.1 | PLI |
| Volume Resistivity | 2.5.17.1 | TBD | MΩ-cm |
| Surface Resistivity | 2.5.17.1 | TBD | MΩ |
| Moisture Absorption, maximum | 2.6.2.1 | 0.31 | % |
| Permittivity (Dk, 53% resin content) A. 1 GHz / 2 GHz B. 5 GHz / 10 GHz C. 15 GHz / 20 GHz | 2.5.5.13 | 3.63 / 3.63 3.63 / 3.63 3.63 / 3.63 | -- |
| Loss Tangent (Df, 53% resin content) A. 1 GHz / 2 GHz B. 5 GHz / 10 GHz C. 15 GHz / 20 GHz | 2.5.5.13 | 0.0029 / 0.0029 0.0029 / 0.0029 0.0029 / 0.0029 | -- |
| Flexural Strength, minimum A. Length direction B. Cross direction | 2.4.4 | TBD TBD | N/mm ² |
| Thermal Stress 10 s at 288°C A. Unetched B. Etched | 2.4.13.1 | Pass Pass | Rating |
| Flammability | UL94 | TBD | Rating |
| Glass Transition Temperature A. TMA B. DSC C. DMA | 2.4.25 | 190 190 205 | °C |
| Decomposition Temperature | 2.4.24.6 | 405 | °C |
| X/Y Axis CTE (40°C to 125°C) | 2.4.24 | 15/16 | ppm/°C |
| Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 to 260 Degrees C | 2.4.24 | 58 325 2.95 | ppm/°C ppm/°C % |



| Items | IPC TM-650 | Typical Value | Unit |
|--|------------|---------------|---------|
| Thermal Resistance | | | |
| A. T260 | 2.4.24.1 | > 120 | Minutes |
| B. T288 | | > 120 | Minutes |
| C. T300 | | > 120 | Minutes |
| UL CTI | | | |
| UL MOT (Maximum operating temperature) | | | |
| Thermal conductivity | | | |
| IPC Slash sheet | 4101 | | |