



# IT-958GTC/IT-958GBS

*High Tg / Halogen Free / Very Low Loss Laminate & Prepreg*

- Advanced High Tg Resin Technology
- Excellent electrical performance
- Lower Dk (<3.8 @ 10GHz) and low Df (<0.007 @ 10GHz)
- Stable Dk/Df with different environment

## Laminate properties

| Items   | IPC TM-650 | Typical Value                        | Unit                  |
|---|------------|--------------------------------------|-----------------------|
| Peel Strength, minimum<br>A. Low profile copper foil                              | 2.4.8      | 3.5~4.2                              | lb/inch               |
| Volume Resistivity  | 2.5.17.1   | > 10 <sup>10</sup>                   | MΩ-cm                 |
| Surface Resistivity   | 2.5.17.1   | > 10 <sup>10</sup>                   | MΩ                    |
| Moisture Absorption, maximum  | 2.6.2.1    | 0.08                                 | %                     |
| Permittivity (Dk, 50% resin content)<br>A. 1GHz<br>B. 2GHz<br>C. 5GHz<br>D. 10GHz | 2.5.5.13   | 3.85<br>3.80<br>3.74<br>3.70         | --                    |
| Loss Tangent (Df, 50% resin content)<br>A. 1GHz<br>B. 2GHz<br>C. 5GHz<br>D. 10GHz | 2.5.5.13   | 0.0054<br>0.0057<br>0.0062<br>0.0070 | --                    |
| Flexural Strength, minimum<br>A. Length direction<br>B. Cross direction           | 2.4.4      | 480-510<br>400-430                   | N/mm <sup>2</sup>     |
| Thermal Stress 10 s at 288°C<br>A. Unetched<br>B. Etched                          | 2.4.13.1   | Pass<br>Pass                         | Rating                |
| Flammability  | UL94       | N/A                                  | Rating                |
| Glass Transition Temperature(DSC)   | 2.4.25     | 175                                  | °C                    |
| Decomposition Temperature   | 2.4.24.6   | 400                                  | °C                    |
| X/Y Axis CTE (40°C to 125°C)  | 2.4.24     | 12/14                                | ppm/°C                |
| Z-Axis CTE<br>A. Alpha 1<br>B. Alpha 2<br>C. 50 to 260 Degrees C                  | 2.4.24     | 40<br>230<br>2.5                     | ppm/°C<br>ppm/°C<br>% |
| Thermal Resistance<br>A. T260<br>B. T288  | 2.4.24.1   | >60<br>>60                           | Minutes<br>Minutes    |