



# IT-150DA

## High Tg / Lead Free / Very Low Loss Laminate & Prepreg

- Automotive Radar application
- Excellent electrical performance
- Lower Dk (<3.7 @ 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<br>B. Standard profile copper foil | 2.4.8      | 4.0~5.0<br>6.0~7.0                   | 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    | < 0.10                               | %                 |
| Permittivity (Dk, 50% resin content)<br>A. 1GHz<br>B. 2GHz<br>C. 5GHz<br>D. 10GHz       | 2.5.5.13   | 3.73<br>3.71<br>3.69<br>3.64         | --                |
| Loss Tangent (Df, 50% resin content)<br>A. 1GHz<br>B. 2GHz<br>C. 5GHz<br>D. 10GHz       | 2.5.5.13   | 0.0052<br>0.0053<br>0.0057<br>0.0065 | --                |
| Flexural Strength, minimum<br>A. Length direction<br>B. Cross direction                 | 2.4.4      | 430-460<br>390-410                   | 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     | 180                                  | °C                |
| Decomposition Temperature   | 2.4.24.6   | 370                                  | °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   | 45<br>250<br>2.6 | ppm/°C<br>ppm/°C<br>% |
| Thermal Resistance<br>A. T260<br>B. T288                         | 2.4.24.1 | >60<br>>30       | Minutes<br>Minutes    |