



# IT-150GTC

## *Halogen Free Multifunctional Epoxy Resin and Lead Free Laminate & Prepreg*

- Halogen Free , Middle Tg and high thermal reliability
- Lead-Free Assembly Compatible
- Friendly Processing and CAF Resistance
- For low cost HDI process applications

### Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength, minimum Standard profile copper foil	2.4.8	6.0-7.0	lb/inch
Volume Resistivity	2.5.17.1	1x10 <sup>10</sup>	MΩ-cm
Surface Resistivity	2.5.17.1	1x10 <sup>10</sup>	MΩ
Moisture Absorption, maximum	2.6.2.1	0.12	%
Permittivity (Dk, 75% resin content)			
A. 1GHz		3.7	
B. 2GHz	2.5.5.13	3.6	--
C. 5GHz		3.5	
D. 10GHz		3.5	
Loss Tangent (Df, 75% resin content)			
A. 1GHz		0.0137	
B. 2GHz	2.5.5.13	0.0140	--
C. 5GHz		0.0145	
D. 10GHz		0.0148	
Flexural Strength, minimum			
A. Length direction	2.4.4	470-500	N/mm <sup>2</sup>
B. Cross direction		400-430	
Thermal Stress 10 s at 288°C			
A. Unetched	2.4.13.1	Pass	Rating
B. Etched		Pass	
Flammability	UL94	V-0	Rating
Glass Transition Temperature(DSC)	2.4.25	150	°C
Decomposition Temperature	2.4.24.6	365	°C
X/Y Axis CTE (40°C to 125°C)	2.4.41	11-13	ppm/°C
Z-Axis CTE			
A. Alpha 1		35	ppm/°C
B. Alpha 2	2.4.24	230	ppm/°C
C. 50 to 260 Degrees C		3.1	%
Thermal Resistance			
A. T260	2.4.24.1	>60	Minutes
B. T288		>60	Minutes