



# IT-150GXTC

## *Middle Tg / Halogen Free / Low Loss Laminate & Prepreg*

- Excellent electrical properties
- Dk (3.7 @ 10GHz) and low Df (0.0071 @ 10GHz)
- Halogen Free , Middle Tg and high thermal reliability
- Applications for server, storage, switch or any mid-loss requirement products

### Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength Reverse treated copper foil (35 m)	2.4.8	4.5	lb/inch
Volume Resistivity	2.5.17.1	1x10 <sup>10</sup>	MΩ-cm
Surface Resistivity	2.5.17.1	1x10 <sup>8</sup>	MΩ
Moisture Absorption	2.6.2.1	0.11	%
Permittivity (Dk, 53% resin content)			
A. 2GHz	2.5.5.13	3.8	--
B. 5GHz		3.7	
C. 10GHz		3.7	
Loss Tangent (Df, 53% resin content)			
A. 2GHz	2.5.5.13	0.0056	--
B. 5GHz		0.0064	
C. 10GHz		0.0071	
Flexural Strength			
A. Warp direction	2.4.4	480	N/mm <sup>2</sup>
B. Fill direction		390	
Thermal Stress 10 s at 288°C			
A. Unetched	2.4.13.1	Pass Visual	Rating
B. Etched		Pass Visual	
Flammability	UL94	V-0	Rating
Glass Transition Temperature (TMA)	2.4.24	150	°C
Decomposition Temperature (@5% wt)	2.4.24.6	390	°C
X/Y Axis CTE (40°C to 125°C)	2.4.41	11/13	ppm/°C
Z-Axis CTE			
A. Alpha 1	2.4.24	40	ppm/°C
B. Alpha 2		260	ppm/°C
C. 50°C to 260°C		2.6	%
Thermal Resistance			
A. T260	2.4.24.1	>60	Minutes
B. T288		>60	Minutes
UL MOT (Maximum operating temperature)		130	