



# IT-968G

CCL : IT-968G  
Prepreg: IT-968GB

## High Tg/ Halogen Free/ Ultra low loss Laminate & Prepreg

- ANSI Type : No ANSI
- Applicable IPC-4101 /134 ; IPC-4103 /240/540
- 100G/400G Switch solution / Lower Dk (3.59 @ 10GHz) and Ultra low Df (0.005 @ 10GHz)
- Stable Dk/Df with different environment condition / Advanced High Tg Resin Technology

### Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength			
A. Reverse treated copper foil (35μm)	2.4.8	4.5	lb/inch
B. Very Low profile copper foil (35μm)		3.5	
Volume Resistivity	2.5.17.1	10 <sup>10</sup>	MΩ-cm
Surface Resistivity	2.5.17.1	10 <sup>9</sup>	MΩ
Moisture Absorption	2.6.2.1	0.15	%
Permittivity (Dk)		(RC55%/RC70%)	--
A. 1GHz	2.5.5.09	3.76/3.38	
B. 2GHz	2.5.5.13	3.68/3.32	
C. 5GHz	2.5.5.13	3.60/3.30	
D. 10 GHz	2.5.5.13	3.59/3.26	
Loss Tangent (Df)		(RC55%/RC70%)	--
A. 1GHz	2.5.5.09	0.0034/0.0031	
B. 2GHz	2.5.5.13	0.0038/0.0031	
C. 5GHz	2.5.5.13	0.0042/0.0035	
D. 10 GHz	2.5.5.13	0.0050/0.0039	
Flexural Strength			N/mm <sup>2</sup>
A. Length direction	2.4.4	415	
B. Cross direction		355	
Young's Modulus			Gpa
A. Warp direction	ASTM D3039	15	
B. Fill direction		14	
Thermal Stress 10 s at 288°C			Rating
A. Unetched	2.4.13.1	Pass Visual	
B. Etched		Pass Visual	
Flammability	UL94	V-0	Rating
Comparative Tracking Index (CTI)	ASTM D3638/ UL 746	CTI 2 (250-399)	Class (Volts)
Maximum Operating Temperature(MOT)	UL 746	130	°C
Glass Transition Temperature(TMA)	2.4.24	175	°C
Decomposition Temperature(5% W.L)	2.4.24.6	400	°C
X/Y Axis CTE (40°C to 125°C)	2.4.41	12/14	ppm/°C
	2.4.24.5	11/12	ppm/°C
Z-Axis CTE			ppm/°C ppm/°C %
A. Alpha 1	2.4.24	45	
B. Alpha 2		260	
C. 50 to 260 Degrees C		2.3	
Thermal Resistance			Minutes Minutes
A. T260	2.4.24.1	> 60	
B. T288		> 60	