

ITEQ
Your Partner of Advanced Materials & Mass Lam Service

IT-602G

Low CTE and Low Df , Halogen Free , High Tg Material

- ANSI Type :**No ANSI**
- Applicable IPC-4101 /127/128/130 ; IPC-4103 /240/540
- Low CTE in X/Y/Z -axis for excellent thermal performance
- Low Df for excellent electrical performance
- For HDI, Smart Phone, Memory Module, SSD, SiP, DRAM , Nand Flash Applications
- For High Speed Server , NB , Networking and Telecom & Automotive HDI application

Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength A. Low profile copper foil (RTF Hoz) B. Low profile copper foil (RTF2 Hoz)	2.4.8	 4~5 3~4	lb/inch
Volume Resistivity	2.5.17.1	$1x10^{10}$	MΩ-cm
Surface Resistivity	2.5.17.1	$1x10^{9}$	MΩ
Moisture Absorption	2.6.2.1	0.20	%
Permittivity (Dk, 55%/70% resin content) A. 1GHz B. 2GHz C. 5GHz D. 10GHz	2.5.5.13	 3.97/3.60 3.96/3.59 3.88/3.50 3.85/3.47	--
Loss Tangent (Df, 55%/70% resin content) A. 1GHz B. 2GHz C. 5GHz D. 10GHz	2.5.5.13	 0.0046/0.0047 0.0047/0.0048 0.0055/0.0056 0.0060/0.0061	--
Flexural Strength A. Length direction B. Cross direction	2.4.4	 435 405	N/mm^2
Flexural Modulus A. Warp B. Fill	2.4.4	 24-26 23-25	Gpa
Young's Modulus A. Warp direction B. Fill direction	ASTM D3039	 19 18	Gpa
Thermal Stress 10 s at 288°C A. Unetched B. Etched	2.4.13.1	 Pass Pass	Rating
Flammability	UL94	V-0	Rating
Comparative Tracking Index (CTI)	ASTM D3638 / UL 746	CTI 2 (250-399)	Class (Volts)
Glass Transition Temperature (TMA/DMA)	2.4.24 / 2.4.24.4	210/230	℃
Decomposition Temperature (5% W.L)	2.4.24.6	415	℃
X/Y Axis CTE (40℃ to 125℃)	2.4.24.5	9/9	ppm/°C
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 ˚C to 260˚C	2.4.24	 20~30 110~130 1.1	 ppm/°C ppm/°C %
Thermal Resistance A. T260 B. T288	2.4.24.1	 >60 >60	 Minutes Minutes