

ITEQ
Your Partner of Advanced Materials & Mass Lam Service

IT-988G

CCL : IT-988GTC
Prepreg: IT-988GBS

High Tg / Lead Free / Ultra Low Loss Laminate & Prepreg

- ANSI Type : **No ANSI**
- Applicable IPC-4101 /134；IPC-4103 /240/540
- 100G/400G Switch solution / Lower Dk (<3.76 @ 10GHz) and Ultra low Df (<0.0035 @ 10GHz)
- Very Stable dk-df across frequency / Advanced High Tg Resin Technology

Laminate properties

Items	IPC TM-650		Typical Value		Unit
Peel Strength A. Low profile copper foil	2.4.8		4.0		lb/inch
Volume Resistivity	2.5.17.1		10^{10}		MΩ-cm
Surface Resistivity	2.5.17.1		10^{10}		MΩ
Moisture Absorption	2.6.2.1		0.15		%
Permittivity (Dk) A. 1GHz B. 2GHz C. 5GHz D.10GHz	 2.5.5.9 2.5.5.13 2.5.5.13 2.5.5.13	 Note* 	50%/70% 3.80/3.37 3.71/3.26 3.63/3.21 3.61/3.19	50% 3.77 3.76 3.76 3.76	--
Loss Tangent (Df) A. 1GHz B. 2GHz C. 5GHz D.10GHz	 2.5.5.9 2.5.5.13 2.5.5.13 2.5.5.13	 Note* 	50%/70% 0.0034/0.0023 0.0036/0.0025 0.0041/0.0029 0.0045/0.0032	50% 0.0034 0.0035 0.0035 0.0035	--
Flexural Strength A. Length direction B. Cross direction	2.4.4		 460-480 400-420		N/mm²
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)
Maximum OperatingTemperature(MOT)	UL 746		130		˚C
Glass Transition Temperature(TMA)	2.4.24		180		˚C
Decomposition Temperature(5% W.L)	2.4.24.6		400		˚C
X/Y Axis CTE (40℃ to 125℃)	2.4.41		16/16		ppm/˚C
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 to 260 Degrees C	2.4.24		 50 270 2.5		 ppm/˚C ppm/˚C %
Thermal Resistance A. T260 B. T288	2.4.24.1		 >60 >60		 Minutes Minutes

Note*: The data presented above relates to the perpendicular dielectric parameters of the substrates. Resonators with different diameters have been used for the measurements of the disk samples.