

ITEQ
Your Partner of Advanced Materials
& Mass Lam Service

IT-968

CCL : IT-968TC
Prepreg: IT-968BS

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

- ANSI Type :**FR-4.0**
- Applicable IPC-4101 /102；IPC-4103 /240/540
- 100G/400G Switch solution
- Lower Dk (3.66 @ 10GHz) and Ultra low Df (0.0050 @ 10GHz)
- Stable Dk/Df with different environment
- Advanced High Tg Resin Technology

Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength, minimum A. Low profile copper foil	2.4.8	2.5-3.5	lb/inch
Volume Resistivity	2.5.17.1	$1x10^{10}$	MΩ-cm
Surface Resistivity	2.5.17.1	$1x10^{10}$	MΩ
Moisture Absorption, maximum	2.6.2.1	0.1	%
Permittivity (Dk,50% /70% resin conten) A. 1GHz B. 2GHz C. 5GHz D. 10GHz	 2.5.5.9 2.5.5.13 2.5.5.13 2.5.5.13	50%/70% 3.77/3.32 3.76/3.22 3.68/3.16 3.66/3.14	--
Loss Tangent (Df, 50% /70% resin content) A. 1GHz B. 2GHz C. 5GHz D. 10GHz	 2.5.5.9 2.5.5.13 2.5.5.13 2.5.5.13	50%/70% 0.0032/0.0029 0.0039/0.0031 0.0043/0.0035 0.0050/0.0039	--
Flexural Strength, minimum A. Length direction B. Cross direction	2.4.4	 420-460 400-430	N/mm^2
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 3(175-249)	Class (Volts)
Maximum Operating Temperature(MOT)	UL 746	130	˚C
Glass Transition Temperature(TMA)	2.4.24	190	˚C
Decomposition Temperature(5% W.L)	2.4.24.6	400	˚C
X/Y Axis CTE (40℃ to 125℃)	2.4.41	12/14	ppm/˚C
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 to 260 Degrees C	2.4.24	 45 260 2.2	 ppm/˚C ppm/˚C %
Thermal Resistance A. T260 B. T288	2.4.24.1	 >60 >60	Minutes/ Minutes