

ITEQ
Your Partner of Advanced Materials & Mass Lam Service

IT-968SE

CCL : IT-968SETC
Prepreg: IT-968SEBS

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 (3.16 @ 10GHz) and Ultra low Df (<0.0037 @ 10GHz)
- Stable Dk/Df with different environment / Advanced High Tg Resin Technology

Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength A. Low profile copper foil	2.4.8	2.5-3.5	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	0.1	%
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% 3.32/3.02 3.22/2.92 3.16/2.88 3.16/2.86	--
Loss Tangent (Df,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% 0.0029/0.0021 0.0031/0.0023 0.0033/0.0024 0.0037/0.0028	--
Flexural Strength 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