



# IT-968

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

- 100G/400G Switch solution
- Lower Dk (<3.8 @ 10GHz) and Ultra low Df (<0.005 @ 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 B. Standard profile copper foil	2.4.8	4.0~5.0 6.0~7.0	lb/inch
Volume Resistivity	2.5.17.1	> 10 <sup>10</sup>	MΩ-cm
Surface Resistivity	2.5.17.1	> 10 <sup>10</sup>	MΩ
Moisture Absorption, maximum	2.6.2.1	< 0.1	%
Permittivity (Dk, 50% resin content) A. 1GHz B. 2GHz C. 5GHz D. 10GHz	2.5.5.13	3.77 3.76 3.68 3.66	--
Loss Tangent (Df, 50% resin content) A. 1GHz B. 2GHz C. 5GHz D. 10GHz	2.5.5.13	0.0032 0.0039 0.0043 0.0050	--
Flexural Strength, minimum A. Length direction B. Cross direction	2.4.4	420-460 400-430	N/mm <sup>2</sup>
Thermal Stress 10 s at 288°C A. Unetched B. Etched	2.4.13.1	Pass Pass	Rating
Flammability	UL94	N/A	Rating
Glass Transition Temperature(DSC)	2.4.25	185	°C
Decomposition Temperature	2.4.24.6	400	°C
X/Y Axis CTE (40°C to 125°C)	2.4.24	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