



IT-988GTC

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

- 100G / 400G 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 (35μm)	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, 50% resin content) A. 1GHz / 2GHz B. 5GHz / 10GHz C. 15GHz / 20GHz	Note*	3.77 / 3.76 3.76 / 3.76 3.76 / 3.76	--
Loss Tangent (Df, 50% resin content) A. 1GHz / 2GHz B. 5GHz / 10GHz C. 15GHz / 20GHz	Note*	0.0034 / 0.0035 0.0035 / 0.0035 0.0035 / 0.0035	--
Flexural Strength A. Length direction B. Cross direction	2.4.4	473 411	N/mm ²
Thermal Stress 10 s at 288°C A. Unetched B. Etched	2.4.13.1	Pass Pass	Rating
Flammability	UL94	94V-0	Rating
Glass Transition Temperature (TMA)	2.4.25	180	°C
Decomposition Temperature (@5% wt)	2.4.24.6	400	°C
X/Y Axis CTE (40°C to 125°C)	2.4.24	16/16	ppm/°C
Z-Axis CTE (52.5% resin content) A. Alpha 1 B. Alpha 2 C. 50°C to 260°C	2.4.24	50 270 2.50	ppm/°C ppm/°C %
Thermal Resistance A. T260 B. T288	2.4.24.1	>60 >60	Minutes Minutes

#Sample thickness ; 30 mil = 0.76 mm

Note*: The data presented above relates to the perpendicular (Stripline) dielectric parameters of the substrates. Resonators with different diameters have been used for the measurements of the disk samples. Please use the above data for stripline designs.