



IT-988GTC

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

- 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		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/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
Glass Transition Temperature(TMA)	2.4.25		180		°C				
Comparative Tracking Index (CTI)	IEC 60112 / UL 746		CTI 2 (250-399)			Class (Volts)			
Maximum Operating Temperature(MOT)	UL 746B		130				°C		
Decomposition Temperature(5% W.L)	2.4.24.6		400					°C	
X/Y Axis CTE (40°C to 125°C)	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.

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