



IT-988GLSETC

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

- 400G Switch solution / Lower Dk (3.34 @ 10GHz) and Ultra low Df (0.0026 @ 10GHz)
- Very stable Dk-Df across frequency / Very Low CTE (1.7%)

Laminate properties

Items	IPC TM-650		Typical Value		Unit				
Peel Strength A. Low profile copper foil	2.4.8		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		0.12		%				
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*	(55%/70%) 3.41/3.18 3.40/3.17 3.35/3.14 3.34/3.12	55% 3.30 3.30 3.30 3.30	--				
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		(55%/70%) 0.0018/0.0018 0.0021/0.0021 0.0023/0.0023 0.0026/0.0025	55% 0.0014 0.0015 0.0015 0.0015		--			
Flexural Strength A. Length direction B. Cross direction	2.4.4		475 415				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/DMA)	2.4.25		180/200		°C				
Decomposition Temperature (5% W.L)	2.4.24.6		400			°C			
X/Y Axis CTE (40°C to 125°C)	2.4.41		11/11				ppm/°C		
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 °C to 260°C	2.4.24		35 185 1.7					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