



IT-998GSE2TC

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

- Lower Dk (3.05 @ 10GHz) and Ultra low Df (0.0011 @ 10GHz)
- Very Stable Dk-Df across frequency / 800G Solution

Laminate properties

Items	IPC TM-650	Typical Value		Unit
Peel Strength Low profile copper foil (35 μm)	2.4.8	3.0		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. 2 GHz B. 5 GHz C. 10 GHz	2.5.5.13 2.5.5.13 2.5.5.13	(RC 65%) 3.24 3.17 3.16	(RC 78%) 3.10 3.07 3.05	--
Loss Tangent (Df) A. 2 GHz B. 5 GHz C. 10 GHz	2.5.5.13	(RC 65%) 0.0010 0.0011 0.0013	(RC 78%) 0.0009 0.0011 0.0011	--
Thermal Stress 10 sec at 288°C A. Unetched B. Etched	2.4.13.1	Pass Visual Pass Visual		Rating
Flammability	UL94	V-0		Rating
Comparative Tracking Index (CTI)	IEC 60112 / UL 746	CTI 2 (250-399)		Class (Volts)
Maximum Operating Temperature(MOT)	UL 746B	130		°C
Glass Transition Temperature(DMA)	2.4.24.2	200		°C
Decomposition Temperature (5wt%)	2.4.24.6	380		°C
X/Y Axis CTE (-40°C to 125°C)	2.4.41	12/13		ppm/°C
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 to 260 Degrees C	2.4.24	45-50 225-250 2.0		ppm/°C ppm/°C %
Thermal Resistance A. T260 B. T288	2.4.24.1	> 60 > 60		Minutes Minutes