ITEQ
Your Partner of Advanced Materials & Mass Lam Service

IT-8350T

Low Dk / Ultra Low Loss / High Thermal Conductivity RF Microwave Product

- High Thermal Conductivity (0.9 W/mk) / Power Amplifiers, Filters and Couplers
- Tower Mounted Amplifiers and Tower Mounted Boosters / Thermally Cycled Antennas
- Microwave Combiner and Power Dividers

Laminate properties

Items	IPC TM-650	Typical Value	Unit
Thermal Conductivity	ASTM D5470	0.9	W/mK
Peel Strength A. Low profile copper foil (35 μm)	2.4.8	3.5	lb/inch
Volume Resistivity	2.5.17.1	10^{10}	MΩ-cm
Surface Resistivity	2.5.17.1	10^{9}	MΩ
Moisture Absorption	2.6.2.1	0.10	%
Permittivity (Dk) A. 2 GHz B. 5 GHz C. 10 GHz	TM-mode, CDR C-24/23/50	 3.51 3.51 3.51	--
Loss Tangent (Df) A. 2 GHz B. 5 GHz C. 10 GHz	TM-mode, CDR C-24/23/50	 0.0017 0.0017 0.0017	--
Flexural Strength (30 mil) A. Length direction B.Cross direction	2.4.4	 260-280 250-270	N/mm^2
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
Glass Transition Temperature(DMA)	2.4.25	170	˚C
Decomposition Temperature (5wt%)	2.4.24.6	380	˚C
X/Y Axis CTE (-40°C to 150°C)	2.4.41	12/14	ppm/˚C
Z-Axis CTE A. 50 to 260 Degrees C	2.4.24	2.0	%
Thermal Resistance A. T288 B. T300	2.4.24.1	 > 60 > 60	 Minutes Minutes

*The sample thickness : 0.762 mm

Note:

The above data is typical values and not guaranteed values

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.