



IT-88GMW

High Tg / Low Dk / Ultra Low Loss / Halogen Free RF Microwave Product

- 5G Base Stations and mmWave Applications, Power Amplifiers, Satellite Antenna
- Automotive Radar, Point to point – microwave links, Aerospace applications

Laminate properties

Items	IPC TM-650	Typical Value	Unit
Peel Strength A. Low profile copper foil (35 μm)	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	0.17	%
Permittivity (Dk) A. 2 GHz B. 5 GHz C. 10 GHz	TM-mode, CDR C-24/23/50	3.02 3.02 3.02	--
Loss Tangent (Df) A. 2 GHz B. 5 GHz C. 10 GHz	TM-mode, CDR C-24/23/50	0.0013 0.0013 0.0013	--
Flexural Strength (30 mil) A.Length direction B.Cross direction	2.4.4	230-260 225-250	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(TMA)	2.4.25	185	°C
Decomposition Temperature (5wt%)	2.4.24.6	425	°C
X/Y Axis CTE (-40°C to 150°C)	2.4.41	27/27	ppm/°C
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 to 260 Degrees C	2.4.24	70 400 3.9	ppm/°C ppm/°C %
Thermal Resistance A. T288 B. T300	2.4.24.1	> 60 > 60	Minutes Minutes

*The sample thickness : 0.508 mm