



High Tg / Upper Mid Loss / Halogen Free

EM-370(D) / EM-37B(D)

- Standard FR-4 Dk and lower Df
- Z-axis CTE 2.2% (50~260 °C)
- Low moisture absorption and excellent CAF resistance
- For high performance server, network and telecom application
- Applicable IPC-4101 Slash Sheets: /127, /128, /130

Basic Laminate Property

Property	Item		IPC-TM-650	Test Condition	Unit	Typical Value
Thermal	Tg		2.4.25	DSC	°C	175
			2.4.24	TMA	°C	170
			2.4.24.4	DMA	°C	195
	CTE, X/Y-axis		2.4.24.5	< Tg, TMA	ppm/°C	12/15
	CTE, Z-axis		2.4.24	< Tg, TMA	ppm/°C	35~40
				> Tg, TMA	ppm/°C	160~180
	Z-axis Expansion		2.4.24	50~260°C	%	2.2
	Td		2.4.24.6	TGA (5% W.L)	°C	385
T288		2.4.24.1	Clad	Min	>60	
Electrical	Dk (R/C: 50%)	1 GHz	2.5.5.9	C-24/23/50	-	4.1
		10 GHz	Cavity Resonator		-	4.0
	Df (R/C: 50%)	1 GHz	2.5.5.9	C-24/23/50	-	0.011
		10 GHz	Cavity Resonator		-	0.015
	Volume Resistivity		2.5.17.1	C-96/35/90	MΩ-cm	>10 ¹⁰
	Surface Resistivity		2.5.17.1	C-96/35/90	MΩ	>10 ⁹
Physical	Water Absorption		2.6.2.1	E-1/105+D-24/23	%	0.13
	Peel Strength (HTE)	0.5 oz	2.4.8	As Received (After thermal stress)	lb/in	5.5 (5.5)
		1.0 oz				6.5 (6.5)
	Peel Strength (RTF)	0.5 oz	2.4.8	As Received (After thermal stress)	lb/in	4.5 (4.5)
		1.0 oz				5.0 (5.0)
	Flexural Strength	Warp	2.4.4	As Received	MPa	510~570
		Fill			MPa	450~500
	Flame Resistance		UL-94	A & E-24/125	-	V-0

Above typical values are tested under specified constructions and not intended for specification.