

EM-828G / EM-828BG

High Tg / Lower Mid Loss / Halogen Free

- Applications include: high-speed server, network and telecom.
- Designed for excellent CAF resistance.
- RoHS Compliant
- UL File: E150504
- Applicable IPC Slash Sheets: IPC-4101 /127, /128, /130; IPC-4103 /240, /540

Basic Laminate Property

Property	Item		Typical Value	Unit	Test Condition	IPC-TM-650
Thermal	Tg		170	°C	DSC	2.4.25
			160	°C	TMA	2.4.24
			190	°C	DMA	2.4.24.4
	CTE, X/Y-axis		12/15	ppm/°C	< Tg, TMA	2.4.24.5
	CTE, Z-axis		40~45	ppm/°C	< Tg, TMA	2.4.24
			220~240	ppm/°C	> Tg, TMA	
	Z-axis Expansion		2.6	%	50~260 °C	2.4.24
	Td		380	°C	TGA (5% W.L)	2.4.24.6
	T288		>20	min.	Clad	2.4.24.1
Electrical	Thermal Conductivity		0.48	W/m.K	-	ASTM D5470
	Dk (R/C: 50%)	1 GHz	3.9	-	C-24/23/50	2.5.5.9
		10 GHz	3.8			Cavity Resonator
	Df (R/C: 50%)	1 GHz	0.008	-	C-24/23/50	2.5.5.9
		10 GHz	0.011			Cavity Resonator
	Volume Resistivity		>10 ¹⁰	MΩ-cm	C-96/35/90	2.5.17.1
Physical	Surface Resistivity		>10 ⁹	MΩ	C-96/35/90	2.5.17.1
	Water Absorption		0.08	%	E-1/105+D-24/23	2.6.2.1
	Peel Strength (RTF)	H oz	3.5 (3.5)	lb/in	As Received (After thermal stress)	2.4.8
		1 oz	4.0 (4.0)	lb/in	As Received (After thermal stress)	2.4.8
	Flexural Strength	Warp	450~510	MPa	As Received	2.4.4
		Fill	400~450	MPa		
	Flame Resistance		V-0	-	C-48/23/50	UL-94

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