EM-892K / EM-892BK

High Tg / Extreme Low Loss / Halogen Free

- Applications include: high-speed Ethernet, network, HPC, AI, 5G and antenna.
- Designed for high thermal reliability with excellent CAF resistance.
- Outstanding multiple lamination capability.
- Fabrication friendly resin can be combined with mid-loss resins for "hybrid" designs.
- RoHS Compliant
- UL File: E150504
- Applicable IPC Slash Sheets: IPC-4101 /134; IPC-4103 /230, /530

Basic Laminate Property

Property	Item		Typical Value	Unit	Test Condition	IPC-TM-650
Thermal	Tg		N/A	°C	DSC	2.4.25
			180	°C	TMA	2.4.24
			215	°C	DMA	2.4.24.4
	CTE, X/Y-axis		12/13	ppm/ °C	< Tg, TMA	2.4.24.5
	CTE, Z-axis		40~45	ppm/ °C	< Tg, TMA	2.4.24
			185~205	ppm/ °C	> Tg, TMA	
	Z-axis Expansion		1.8	%	50~260 °C	2.4.24
	Td		420	°C	TGA (5% W.L)	2.4.24.6
	T288		>60	min.	Clad	2.4.24.1
			>60	min.	Etched	
	Thermal Conductivity		0.46	W/m.K	-	ASTM D5470
Electrical	Dk (R/C: 55/70%)	1 GHz	3.11/2.93	-	C-24/23/50	2.5.5.9
		10 GHz	3.00/2.84	-		Cavity Resonator
			3.00/2.84	-		SPC method
	Df (R/C: 55/70%)	1 GHz	0.0014/0.0012	-	C-24/23/50	2.5.5.9
		10 GHz	0.0019/0.0017	-		Cavity Resonator
			0.0015/0.0013	-		SPC method
	Volume Resistivity		$>10^{10}$	MΩ-cm	C-96/35/90	2.5.17.1
	Surface Resistivity		$>10^{9}$	MΩ	C-96/35/90	2.5.17.1
Physical	Water Absorption		0.07	%	E-1/105+D-24/23	2.6.2.1
	Peel Strength (HVLP3)	H oz	3.5	lb/in	As Received	2.4.8
	Flexural Strength	Warp	450~510	MPa	As Received	2.4.4
		Fill	400~450	MPa		
	Flame Resistance		V-0	-	A & E-24/125	UL-94

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