



# EM-892K2 / EM-892BK2

## 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	3.00/2.85	-	C-24/23/50	2.5.5.9
		10 GHz	2.90/2.76	-		Cavity Resonator
			2.90/2.76	-		SPC method
	Df (R/C: 55/70%)	1 GHz	0.0010/0.0010	-	C-24/23/50	2.5.5.9
		10 GHz	0.0014/0.0013	-		Cavity Resonator
			0.0011/0.0010	-		SPC method
	Volume Resistivity	>10 <sup>10</sup>	MΩ-cm	C-96/35/90	2.5.17.1	
Surface Resistivity	>10 <sup>9</sup>	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 (HVL3)	H oz	3.5	lb/in	As Received	2.4.8
		Flexural Strength	Warp	450~510	MPa	As Received
	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.