



EM-MP

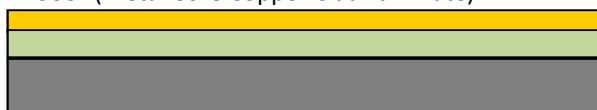
Metal base material for Thermal Management

Thermal conductive, Halogen free and Reliable

EM-M series products are specially designed for wide-needed of thermal management application. These products are developed by EMC, known as one of the best CCL makers. EM-M series products provide good thermal conductivity, excellent reliability and green environment conformity.

Thermal conductivity ,2 W/mk , Di-electric layer thickness, 50um/75um/100um/150um
Single sided metal base and Mass-lam services
All from EMC, a leading Halogen free CCL maker.

MCCCL (Metal Core Copper Clad Laminate)



ED Copper Thickness : EM-MP H~3 oz

Dielectric layer thickness : 50um / 75um / 100um / 150um

Metal type : AL 5052 H32 0.5mm~2.5mm
RA Copper C1100 0.5mm~1.5mm

EM-M series basic property

Item	Test method	unit	EM-MP
Thickness	Micro-section	um	100
Thermal conductivity	ASTM E 1461	W/m*k	2.0
	ASTM D 5470		1.28
Thermal resistance	ASTM D 5470	°C/W	0.125
Hi-pot withstand	IPC-TM-650 2.5.7	KV (AC)	5
Tg (Glass transition Temp.)	IPC-TM-650 2.4.25	°C	120
Td (Decomposition Temp.)	IPC-TM-650 2.4.40	°C	370
CTE, Z-axis	< Tg	ppm/°C	30
	> Tg	ppm/°C	150
Water absorption	IPC-TM-650 2.6.2.1	%	0.17
Peel strength (1 oz)	IPC-TM-650 2.4.8	-	8.0
Thermal stress 288 °C	IPC-TM-650 2.4.13.1	-	pass
Permittivity at 1 GHz	IPC-TM-650 2.5.5.3	-	5.3
Loss tangent at 1 GHz	IPC-TM-650 2.5.5.3	-	0.008
Volume resistance	IPC-TM-650 2.5.17.1	Ω-cm	10 ¹⁵
Surface resistance	IPC-TM-650 2.5.17.1	Ω	10 ¹³

Note : Above table data only for dielectric layer.

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