

Specification of Aluminum Based Copper-clad Laminate

Item	Unit		Specification	Test condition
Insulation thickness	μm	Max Min	200 60	—
Solder resistance (288°C)	Sec.	Min	600	IPC-TM-650 2.4.13.1
Thermal shock	288°C*10"/cycle	Min	6 Times	IPC-TM-650 2.4.13.1
Peel strength (Normal status)	lb/in	Min	9	IPC-TM-650 2.4.8
Breakdown Voltage	V/mil		750	IPC-TM-650 2.5.6
Volume resistivity (Normal status >E+14)	Ω · cm		1.8x10 ¹⁵	IPC-TM-650 2.5.17.1
Surface resistivity (Normal status >E+12)	Ω	—	3.5x10 ¹⁴	IPC-TM-650 2.5.17.1
Dielectric constant				IPC-TM-650
1 MHz Normal status	—		5.6	2.5.5.3
1 GHz Normal status			5.3	2.5.5.5 2.5.5.6
Dissipation Factor				IPC-TM-650
1 MHz Normal status			0.013	2.5.5.3
1 GHz Normal status			0.010	2.5.5.5 2.5.5.9
Water absorption	%		0.2	IPC-TM-650 2.6.2.1
Thermal conductivity (measured on insulation layer only)	W/m°C		1.5	ASTM-E1461
Flammability	94V-0		Pass	IPC-TM-650 2.3.9
Tg	°C		100	IPC-TM-650 2.4.24
Td	°C		410	TBD (5wt% loss)
MOT (RTI)	°C		130	UL 746B
CTI (Comparative Tracking Index)	V		>600 (PLC=0)	UL746E DSR

The thickness and dimension of Aluminum Based Copper-clad Laminate

Product category	L15 (The thickness of resin is 2~8mil)				
Dimension m/m	300~340×500~520 405/400×500~520 600~620×500~520 1200~1240×500~520 1200~1240×1020~1060				
The thickness of Single-Sided PCB with Aluminum Substrate	2.0 1/0	1.5 1/0	1.5 2/0	1.0 1/0	0.8 1/0
The thickness of Double-Sided PCB with Aluminum Substrate	2.0 1/1	1.5 H/H	1.5 1/1	1.0 1/1	0.8 1/1

» The above thicknesses exclude the thickness of resin, and the thickness of copper and Aluminum can be combined arbitrarily.

The thickness of copper foil : H oz ~ 5.0 oz. The thickness of aluminum plate : 0.2 ~ 5.0mm.

Aluminum:1050,1060,1100 Anodizing

» Halogenfree material.

» Compliance with the RoHS and REACH.

The scope of application

» Lighting : General LED lighting.

» Electronic devices in automobile : Ignition device, voltage regulator, auto safety control system, AC converter.

» Power supply : Switch regulator, switch, DC-DC converter, DC-AC converter, MEGA power supply, solar power board.

» Electronic control : Relay, transistor base, switchboard, radiator, insulating conductive board in semiconductor, motor control device.

» Computer devices : Power supply device, soft disk driver, CPU.

» Communication : Automobile telephone, high frequency booster mobile telephone, circuit filter, transmitting circuit.