

PCB制板中导线安全距离的确定(UL60950)

2.10.6.2 Sample preparation and preliminary inspection

Three sample boards (or, for 2.10.9, two components and one board) identified as samples 1, 2 and 3 are required. It is permitted to use either actual boards or specially produced samples with representative coating and minimum separations. Each sample board shall be representative of the minimum separations used, and coated. Each sample is subjected to the full sequence of manufacturing processes, including soldering and cleaning, to which it is normally subjected during equipment assembly.

When visually inspected, the boards shall show no evidence of pinholes or bubbles in the coating or breakthrough of conductive tracks at corners.

Table 2N – Minimum separation distances for coated printed boards

WORKING VOLTAGE		FUNCTIONAL, BASIC or SUPPLEMENTARY INSULATION	REINFORCED INSULATION
V r.m.s.or d.c.		mm	mm
	up to and including	63	0,1
Over	63 up to and including	125	0,2
Over	125 up to and including	160	0,3
Over	160 up to and including	200	0,4
Over	200 up to and including	250	0,6
Over	250 up to and including	320	0,8
Over	320 up to and including	400	1,0
Over	400 up to and including	500	1,3
Over	500 up to and including	630	1,8
Over	630 up to and including	800	2,4
Over	800 up to and including	1 000	2,8
Over	1 000 up to and including	1 250	3,4
Over	1 250 up to and including	1 600	4,1
Over	1 600 up to and including	2 000	5,0
Over	2 000 up to and including	2 500	6,3
Over	2 500 up to and including	3 200	8,2
Over	3 200 up to and including	4 000	10
Over	4 000 up to and including	5 000	13
Over	5 000 up to and including	6 300	16
Over	6 300 up to and including	8 000	20
Over	8 000 up to and including	10 000	26
Over	10 000 up to and including	12 500	33
Over	12 500 up to and including	16 000	43
Over	16 000 up to and including	20 000	55
Over	20 000 up to and including	25 000	70
Over	25 000 up to and including	30 000	86

For voltages between 2 000 V and 30 000 V linear interpolation is permitted between the nearest two points, the calculated spacing being rounded up to the next higher 0,1 mm increment.

另附《PCB制板中导线安全距离的确定》此表格按标题搜索多处网站转载，但出处不详，估计为国内标准，一般使用可作参考：

工作电压工作电压(有效 值或直流 V, ≤)	I 级污染 (设备类别 I)			
	电器间隙 (mm)	爬电距离 (mm)		试验电压 (V) 冲击电压峰值 1.2/50us
		设备内 CTI>100	印制板上 CTI>100	
50	0.1	0.15	0.10	330
100	0.1	0.25	0.10	500
150	0.1	0.30	0.22	800
300	0.5	0.70	0.70	1500
600	1.5	1.70	1.70	2500
1000	3.0	3.20	3.20	4000