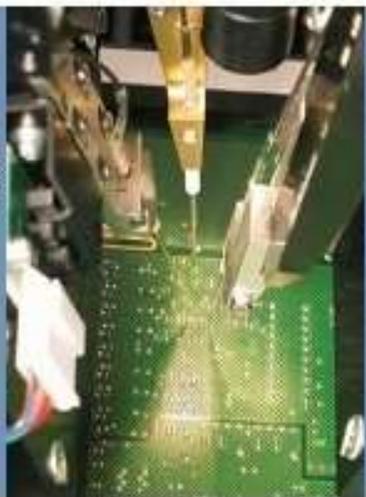


Vitrox V810 测试图片判读



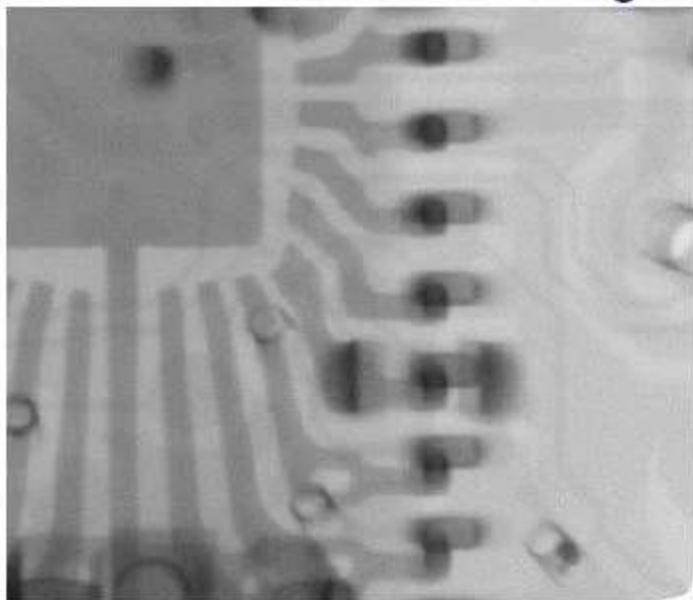
Solutions for Board Test
Agilent3070 ICT
Teradyne TestStation ICT
ViTrox AOI,AXI
TAKAYA Flying probe
Geipel JTAG

Shanghai • Suzhou • Shenzhen • Hongkong

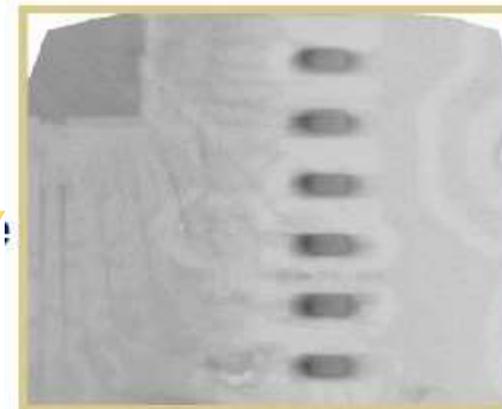
在线X-ray测试原理

分离PCBA正反两面零件,对每一面单独做分析判断

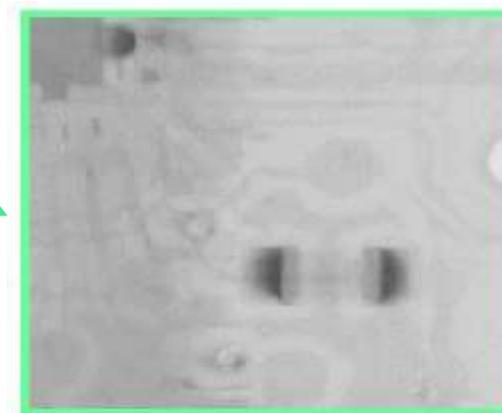
单离轴透射图片



上表面

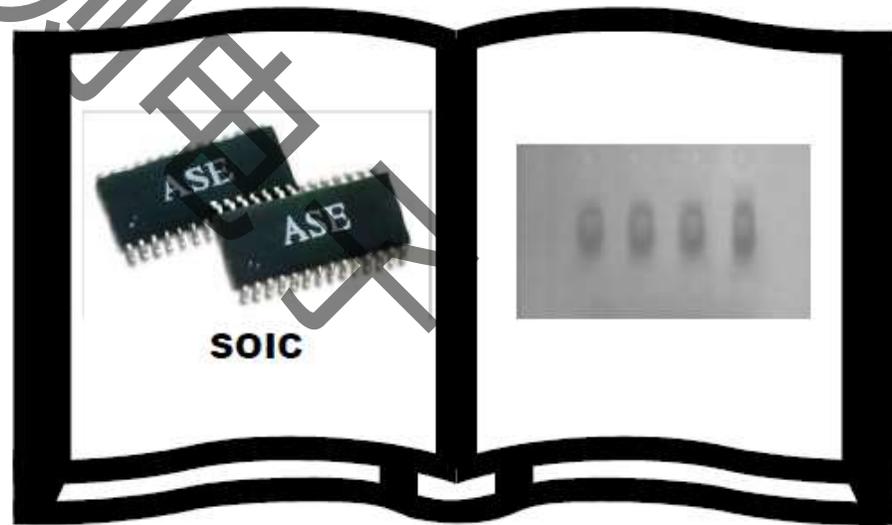
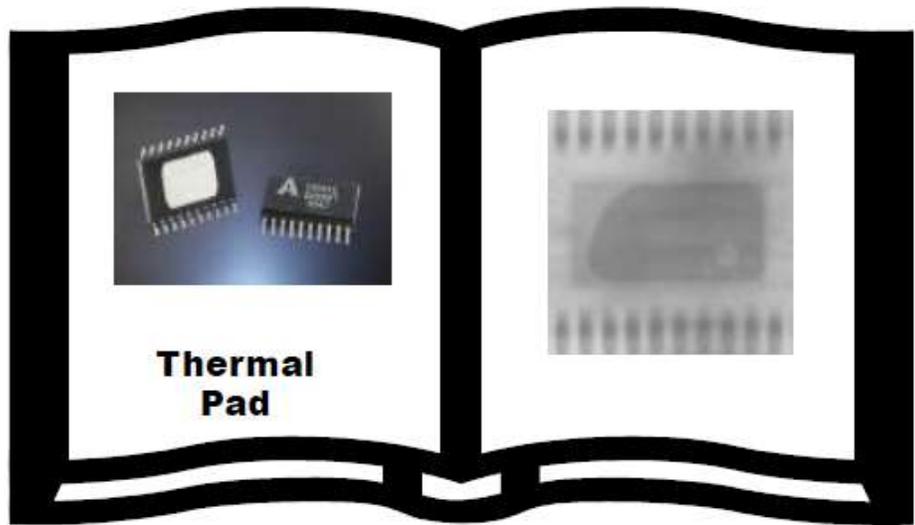
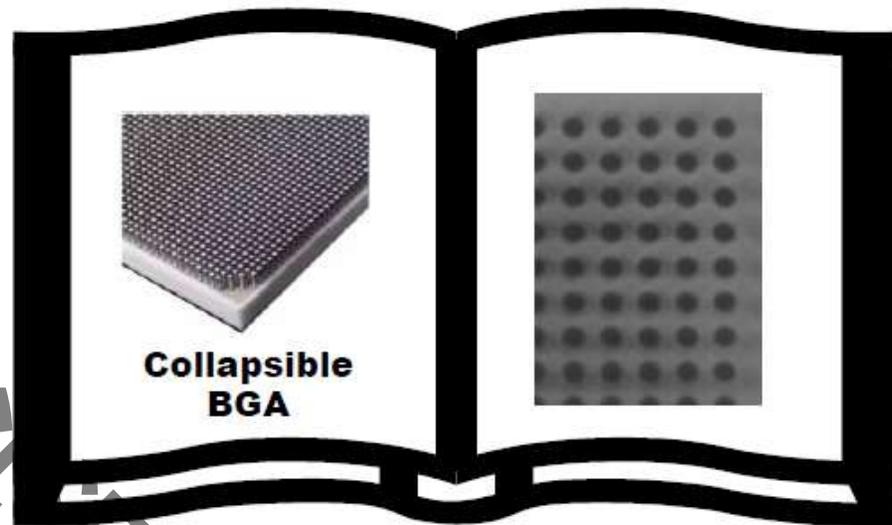
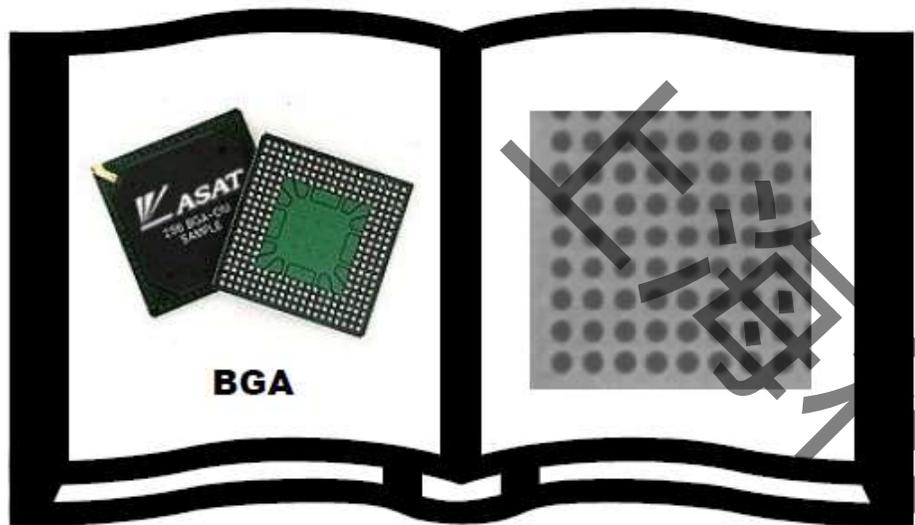


下表面

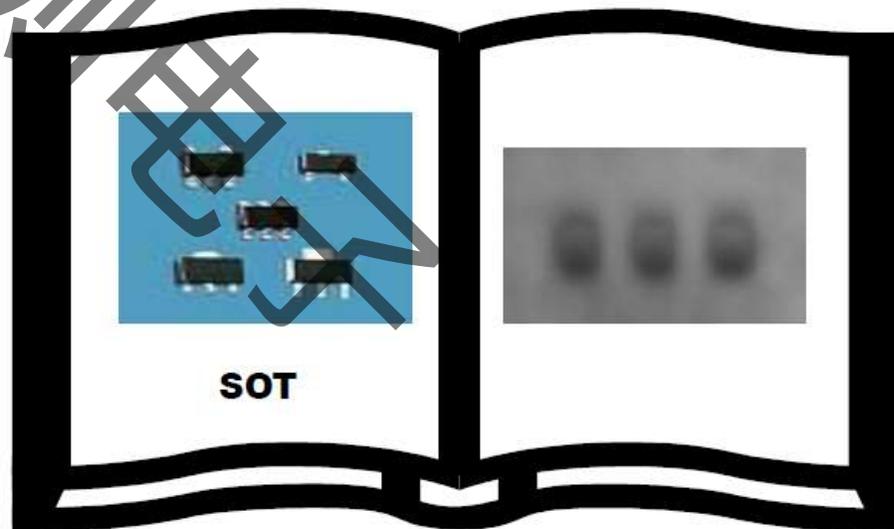
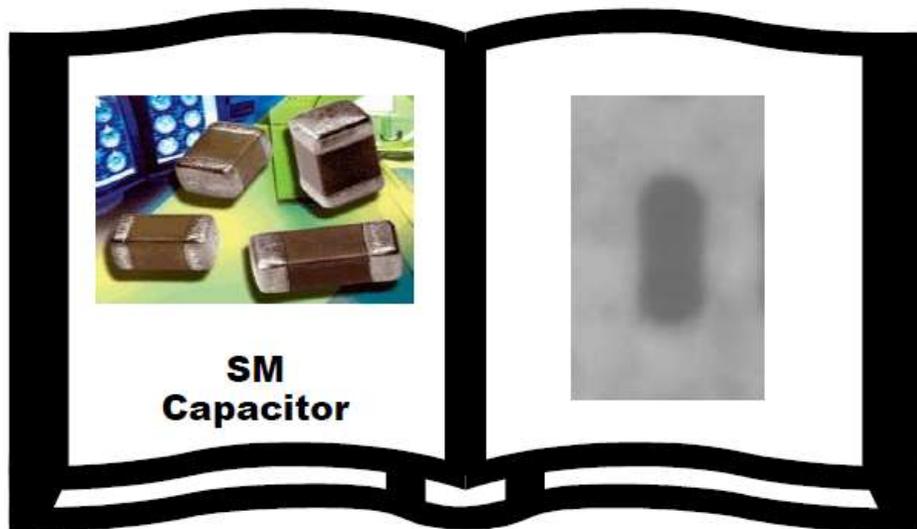
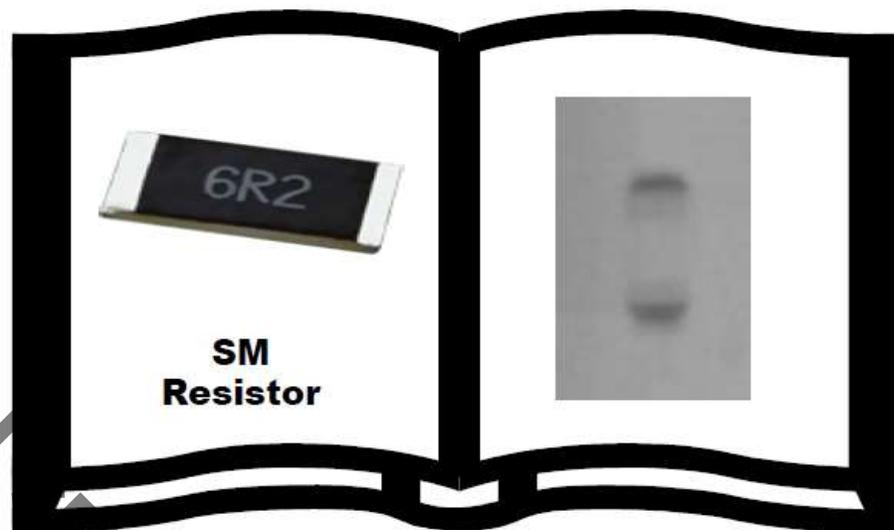
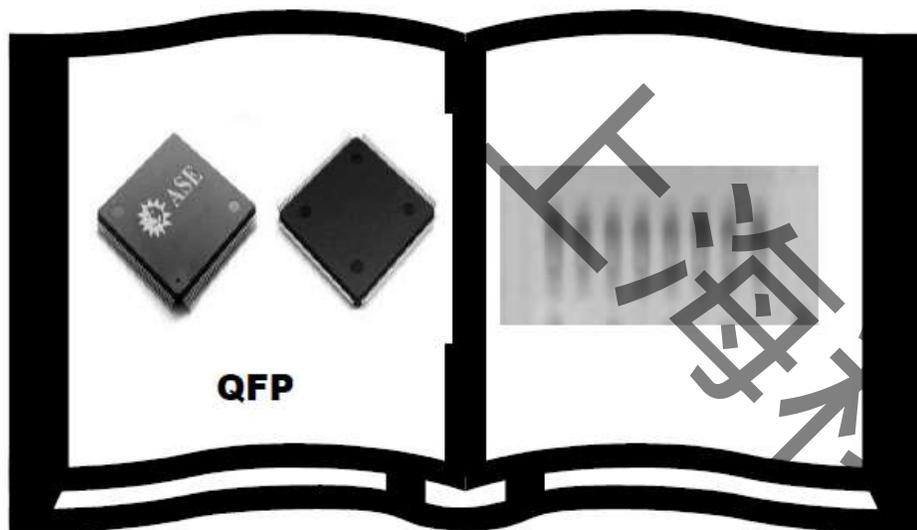


采用多福离轴透射X射线图像重组对上下两面进行分离,从而分离重叠或模糊的焊接连接

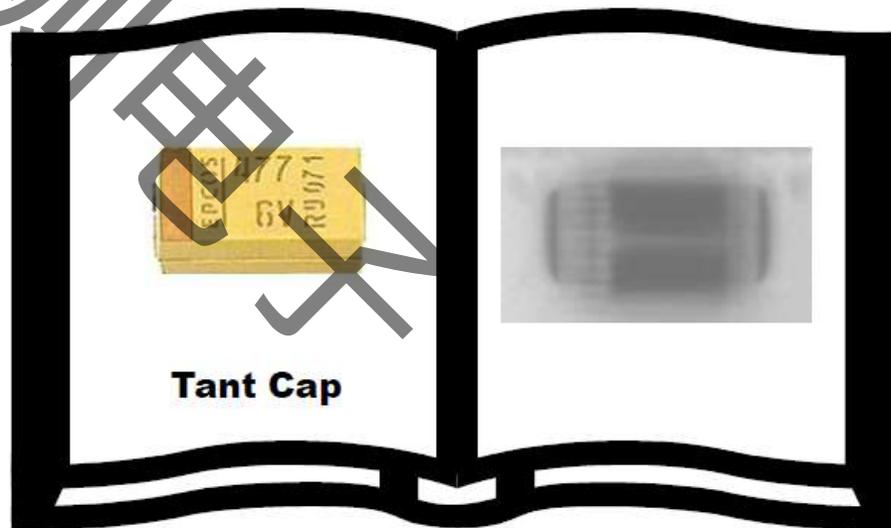
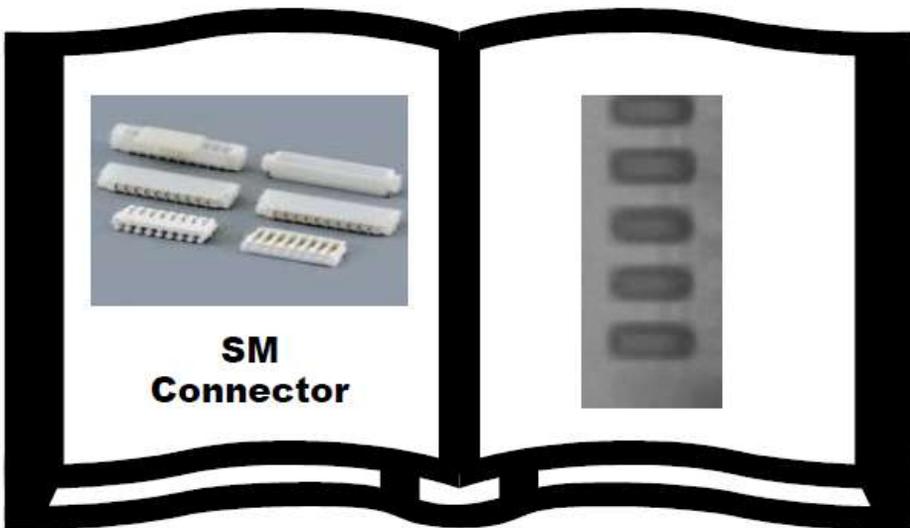
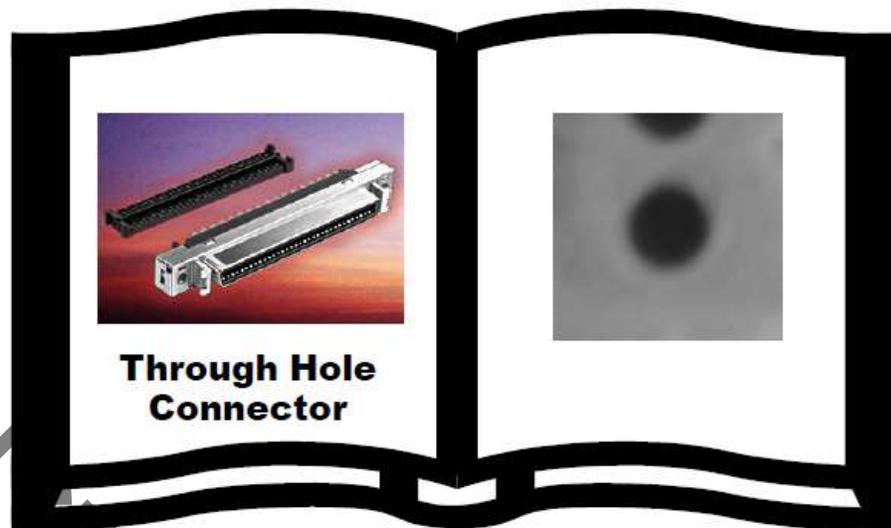
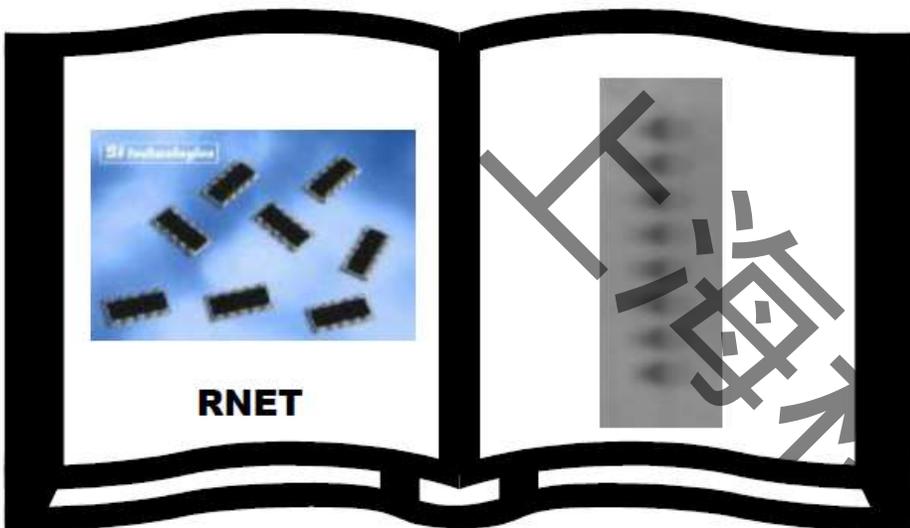
V810 AXI X-ray图片



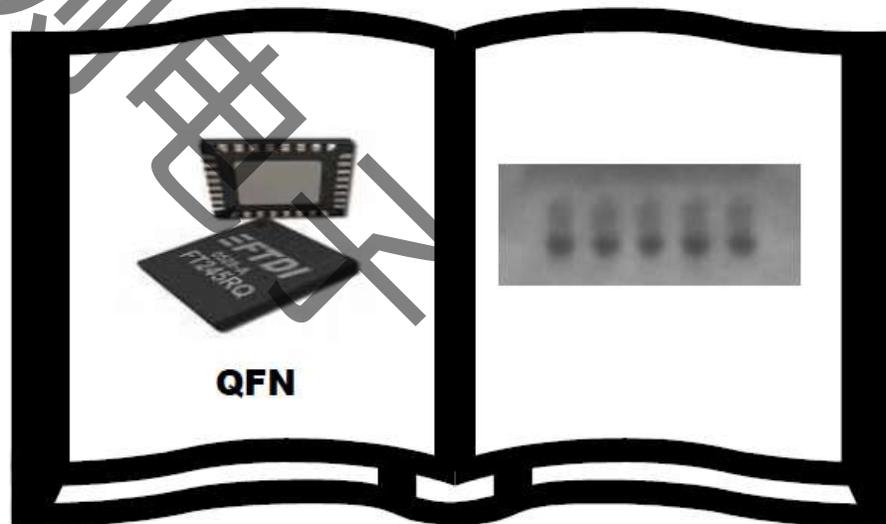
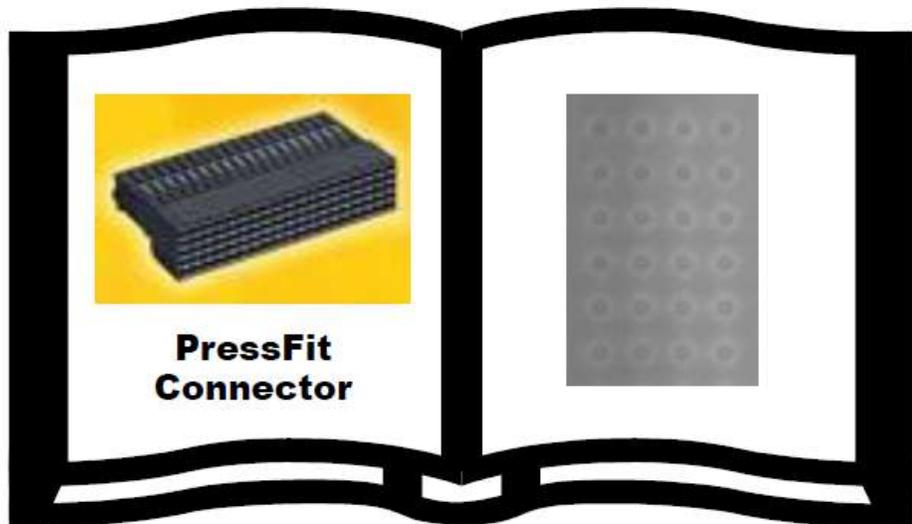
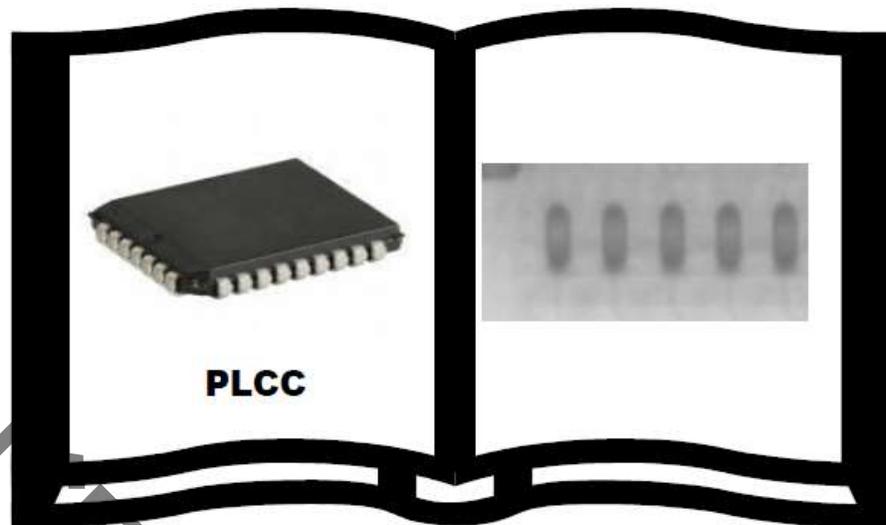
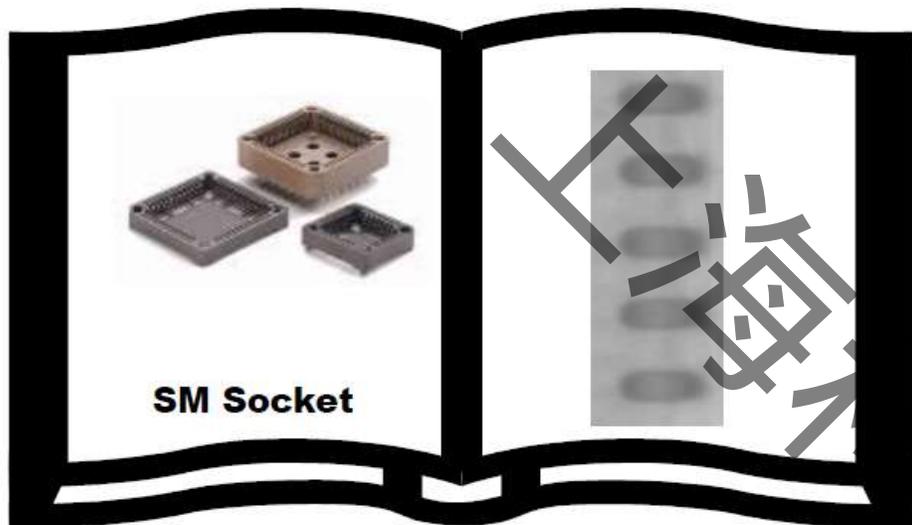
V810 AXI X-ray图片



V810 AXI X-ray图片

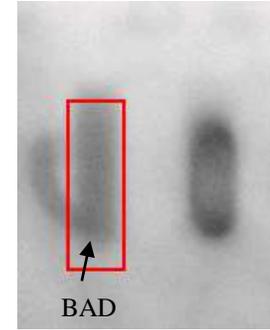
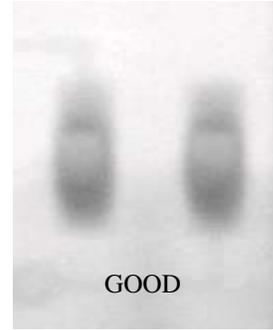
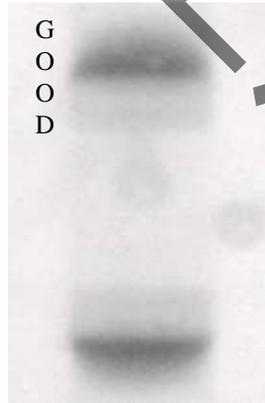
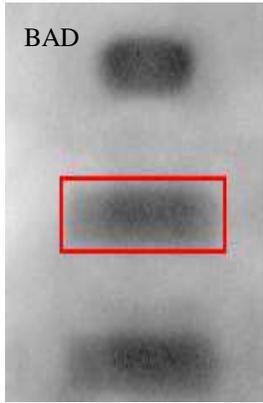


V810 AXI X-ray图片

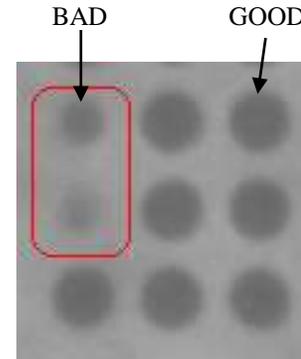
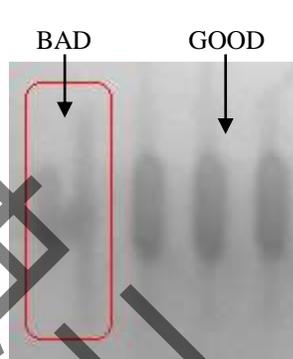


V810图像判定的方法

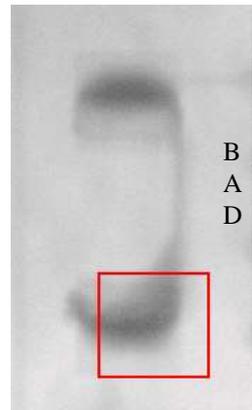
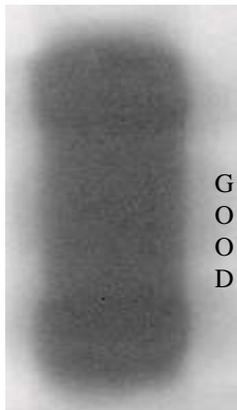
• 图象是否有灰度由深至浅的变化 →



• 焊点是否有圆弧。

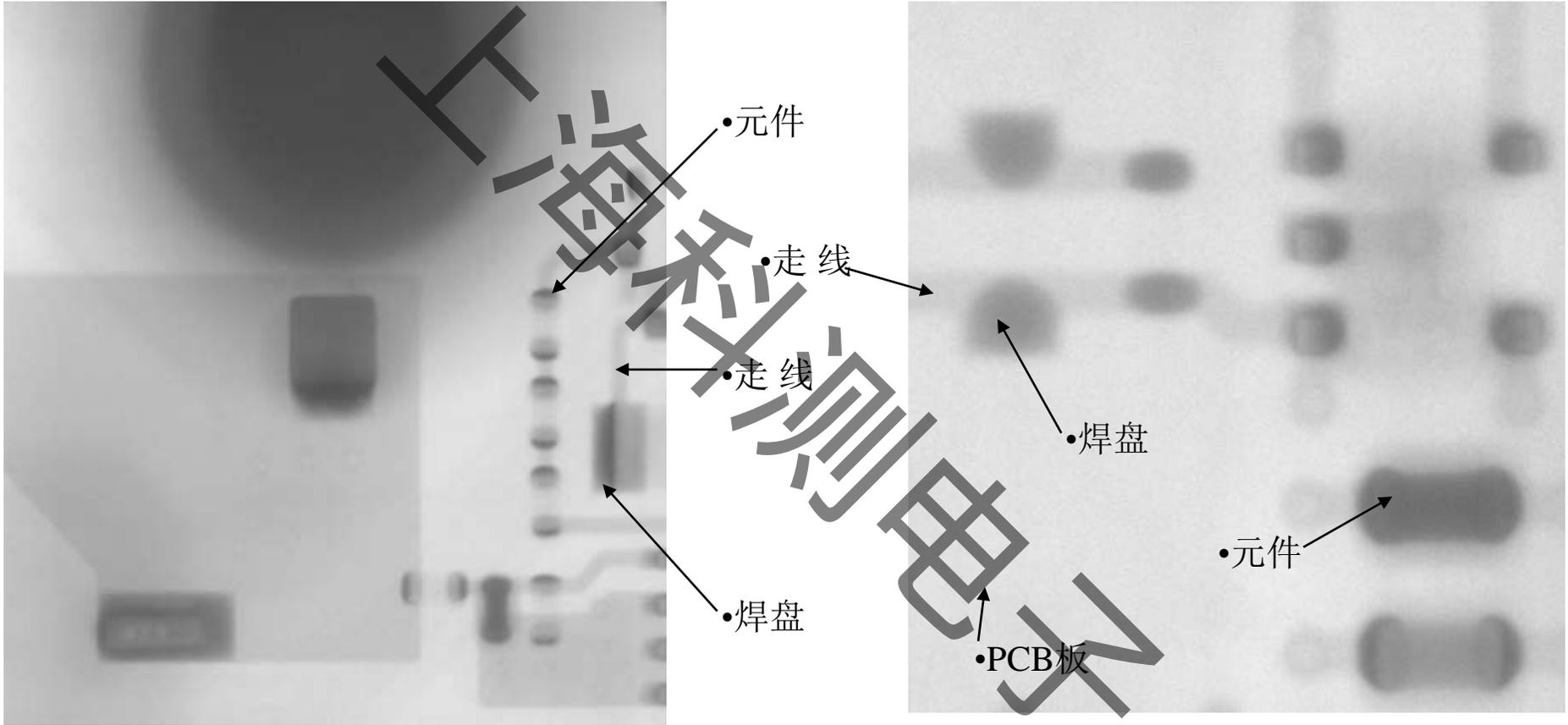


• 对比法 →



• 图象成形是否规则 ←

V810图像判定的方法



好的电容图象



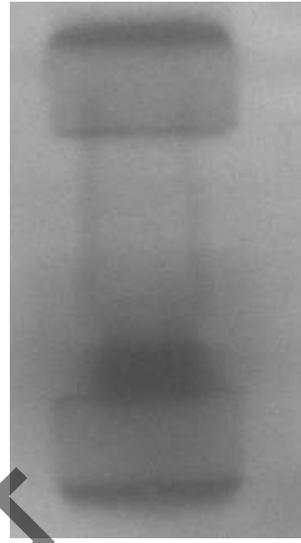
普通电容



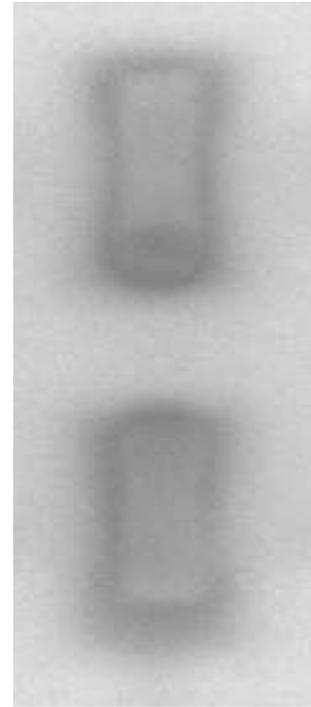
普通电容



普通电容

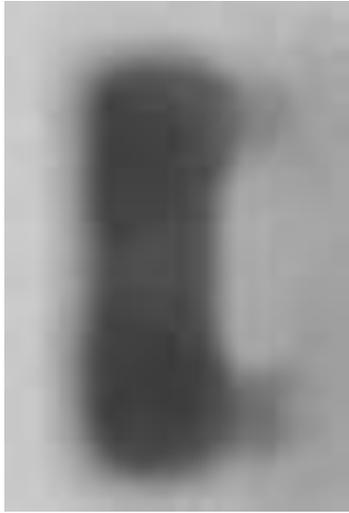


钽电容

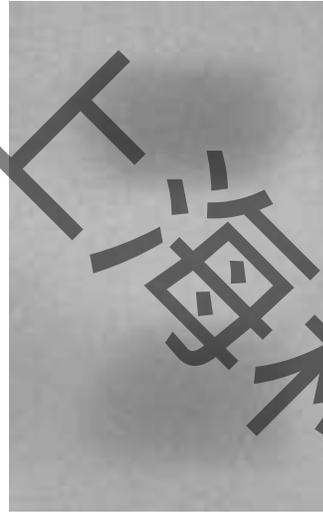


电解电容

有缺陷的电容图象



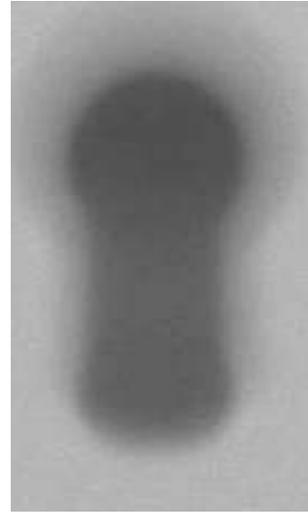
电容错位



电容丢失



钽电容抬高



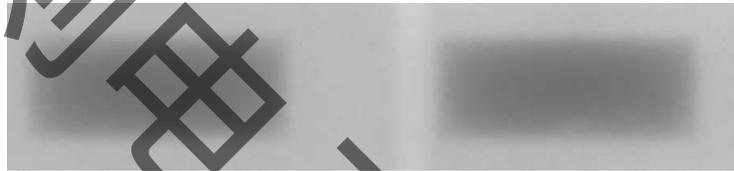
电容少锡



电容立碑

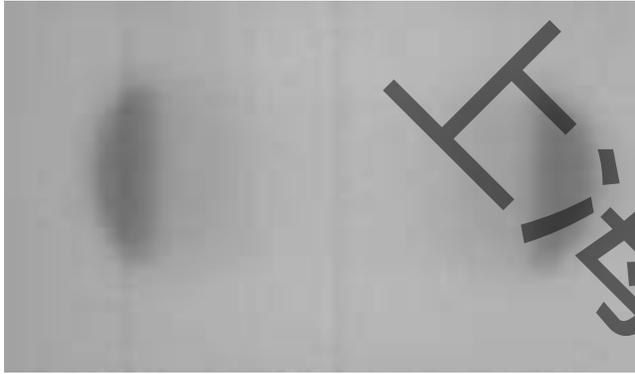


电容损坏

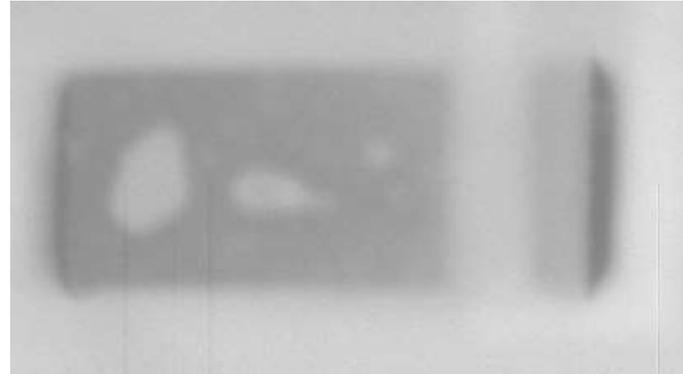


电解电容的空焊盘

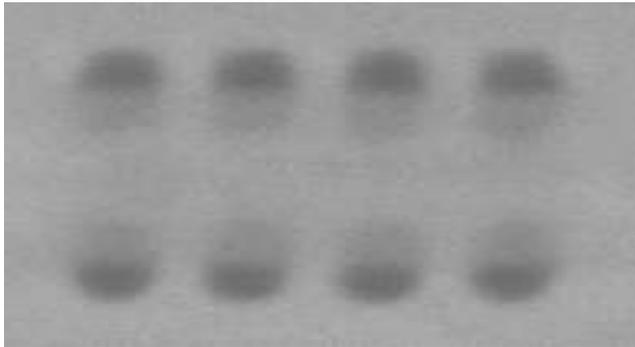
好的电阻图象



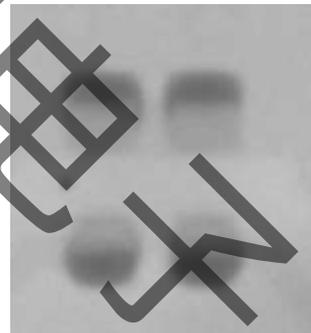
一般的贴片电阻



PIN1 和PIN2大小不同的电阻

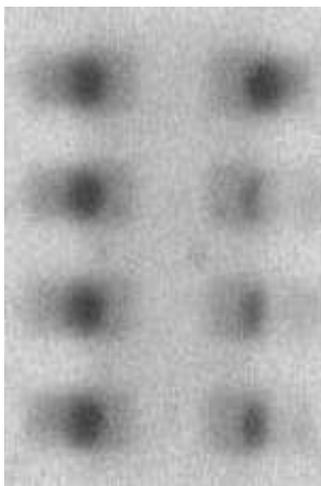


电阻排

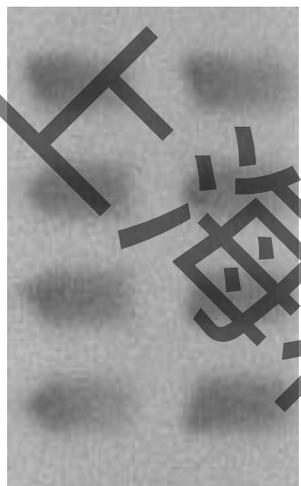


电阻排

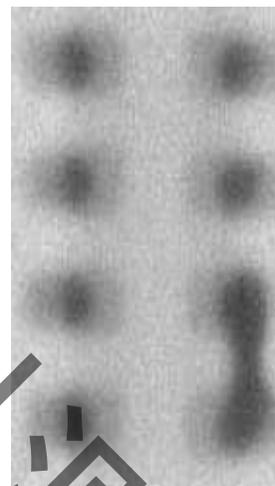
有缺陷的电阻图象



排阻少锡



排阻开路



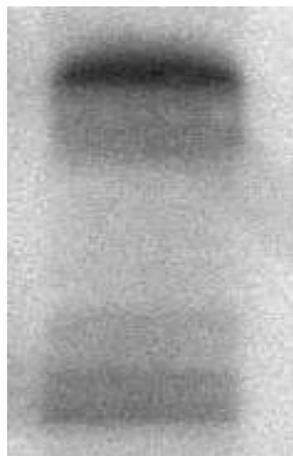
排阻桥接



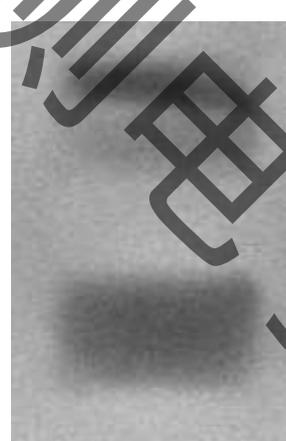
电阻开路



电阻立碑



电阻少锡

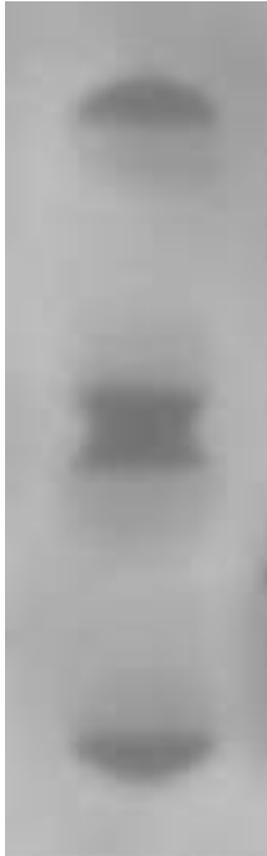


电阻开路

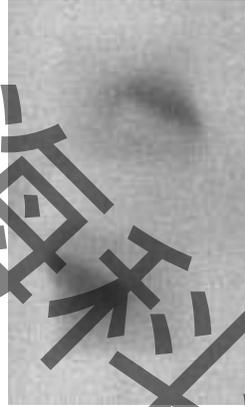


电阻开路

有缺陷的电阻图象



电阻桥接



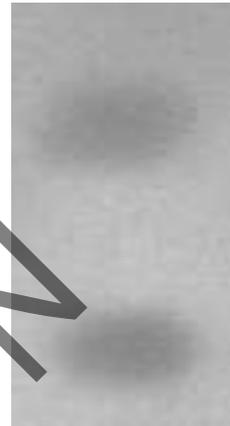
电阻错位



电阻丢失

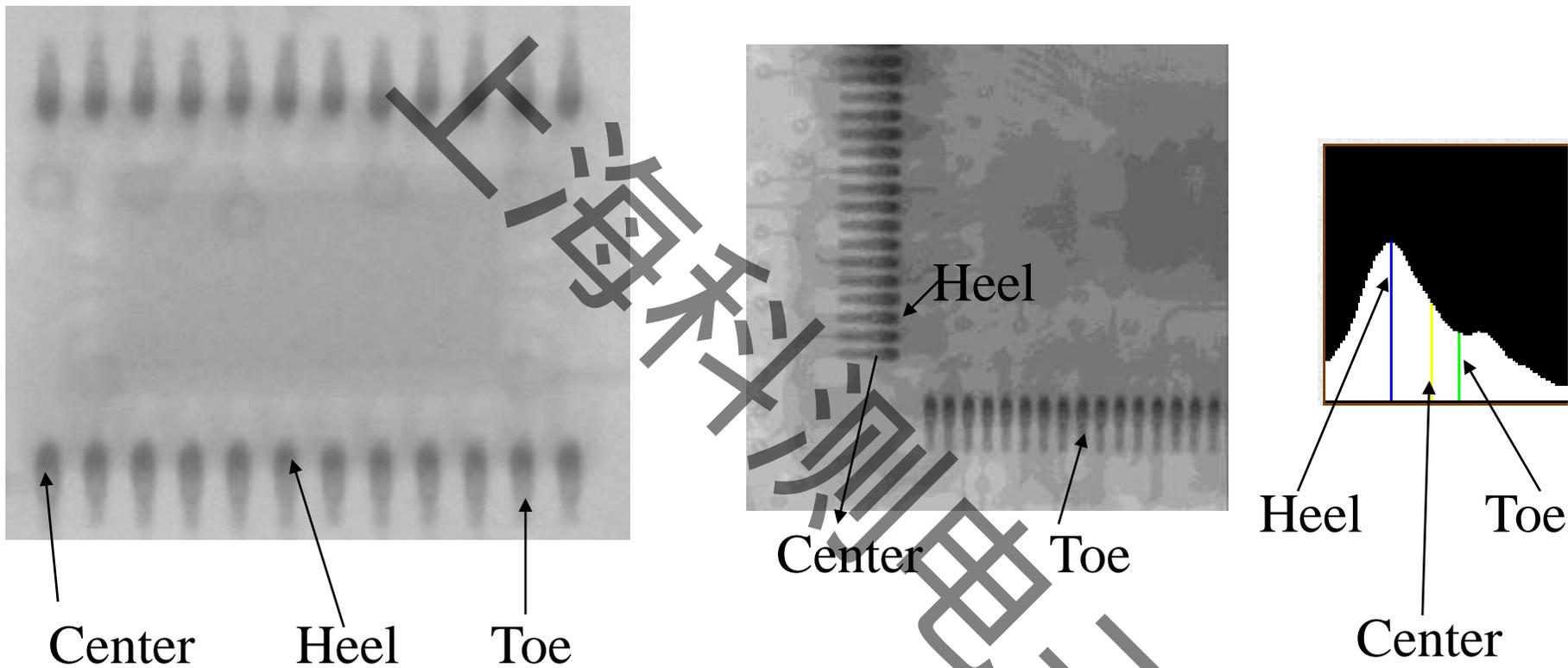


电阻损坏



电阻丢失

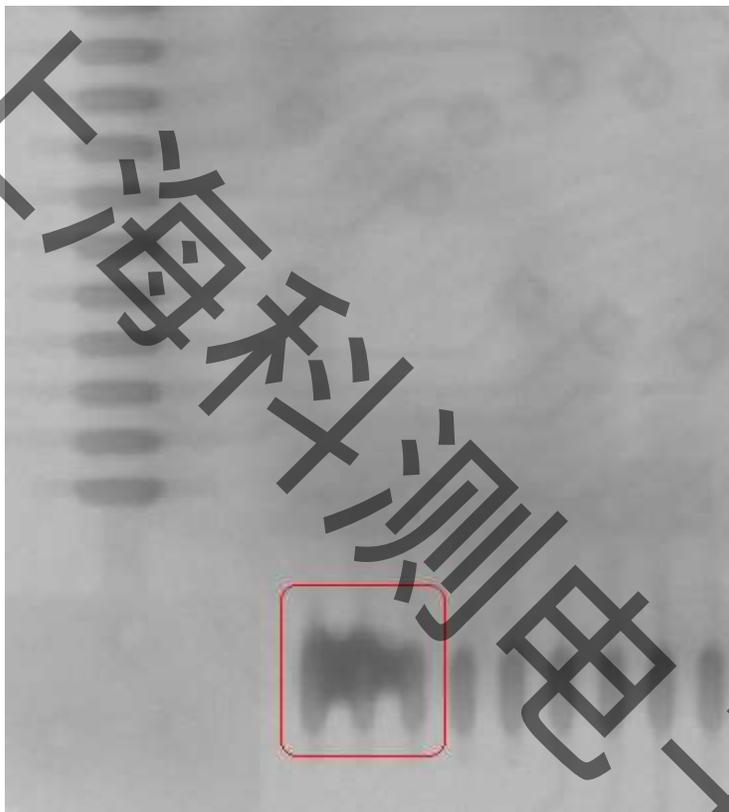
好的QFP元件图象



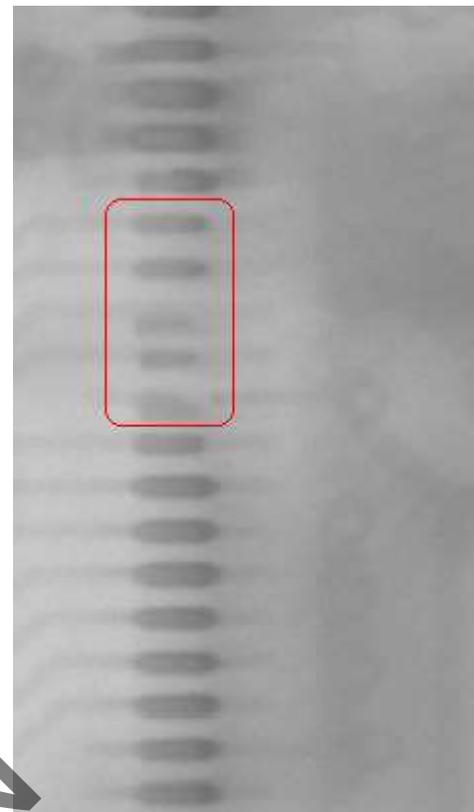
有缺陷的QFP元件图象



元件丢失

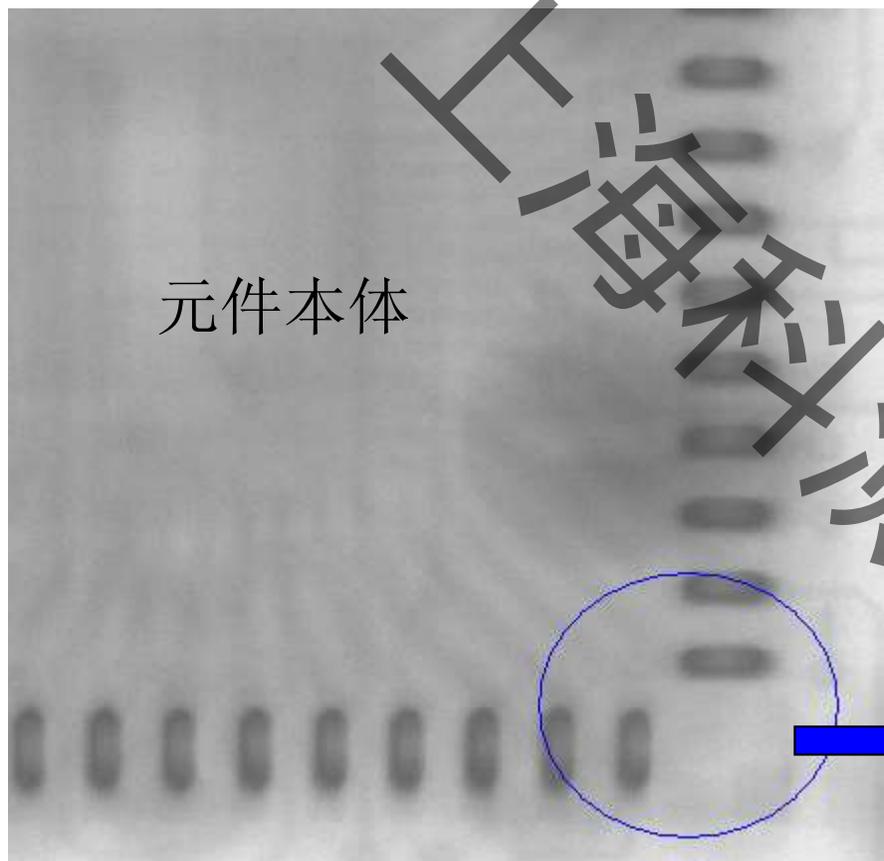


元件桥接

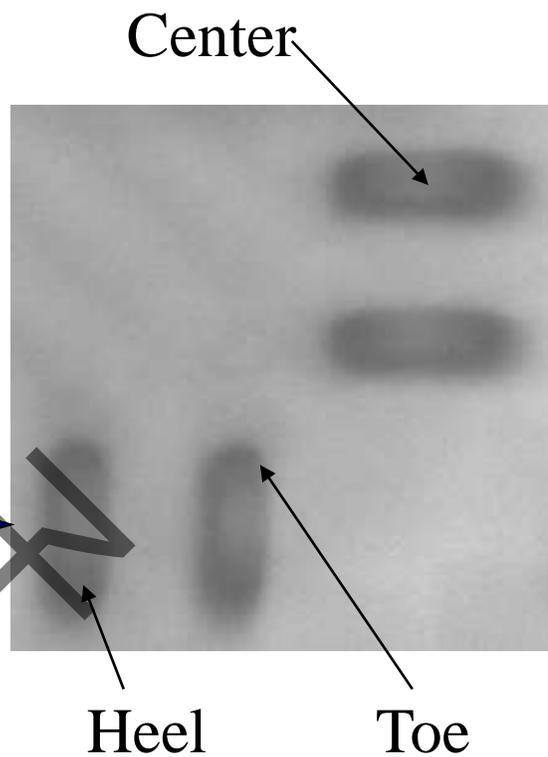


元件少锡

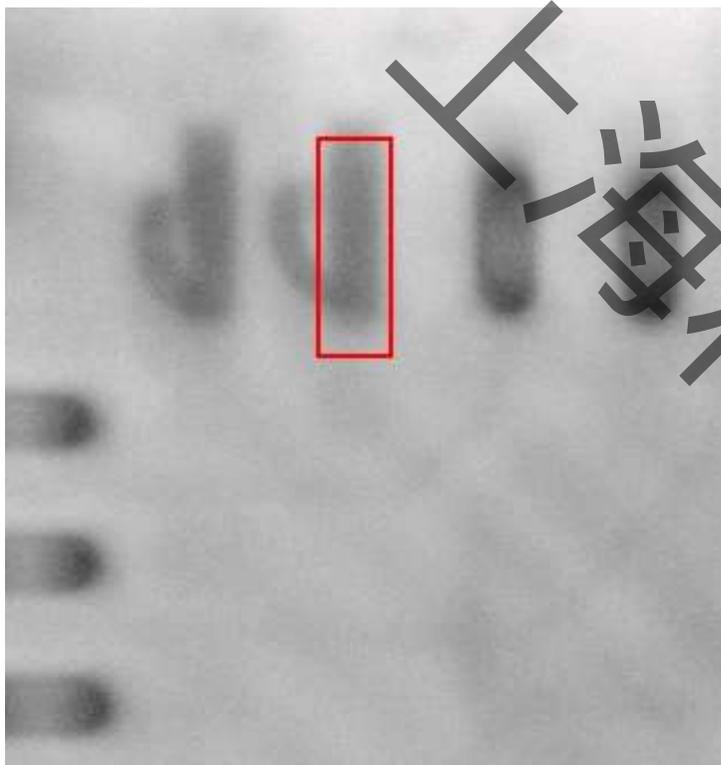
好的JLEAD 元件的图象



正常的JLEAD 元件HEEL 和 TOE 都有焊锡爬升， Center 处焊锡最少。



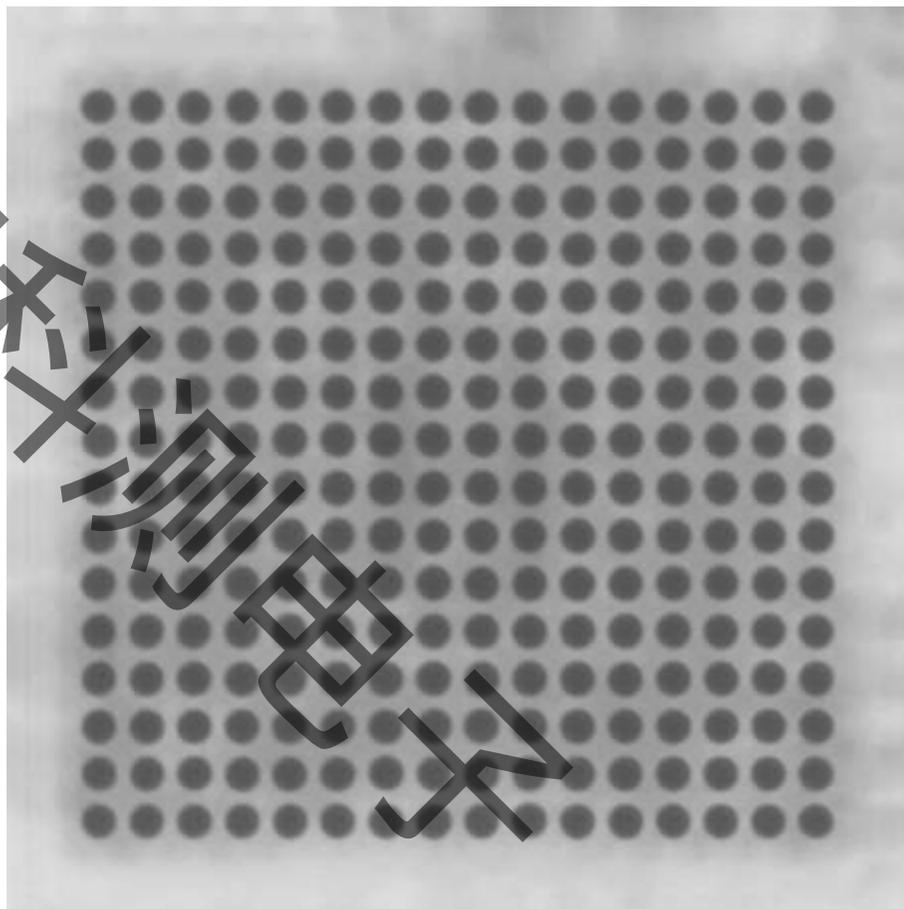
有缺陷的JLEAD 元件的图象



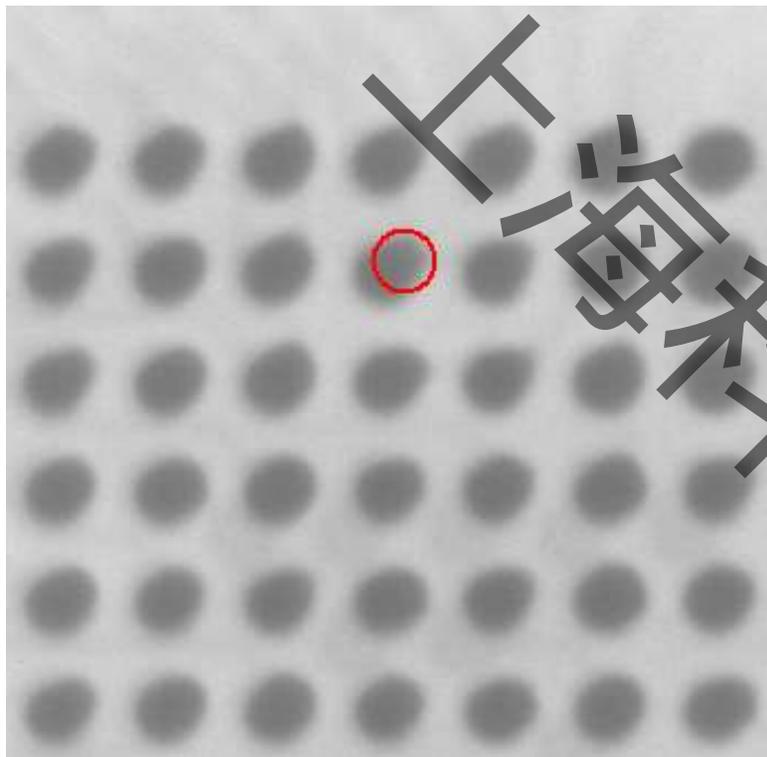
引脚弯曲

好的BGA图像

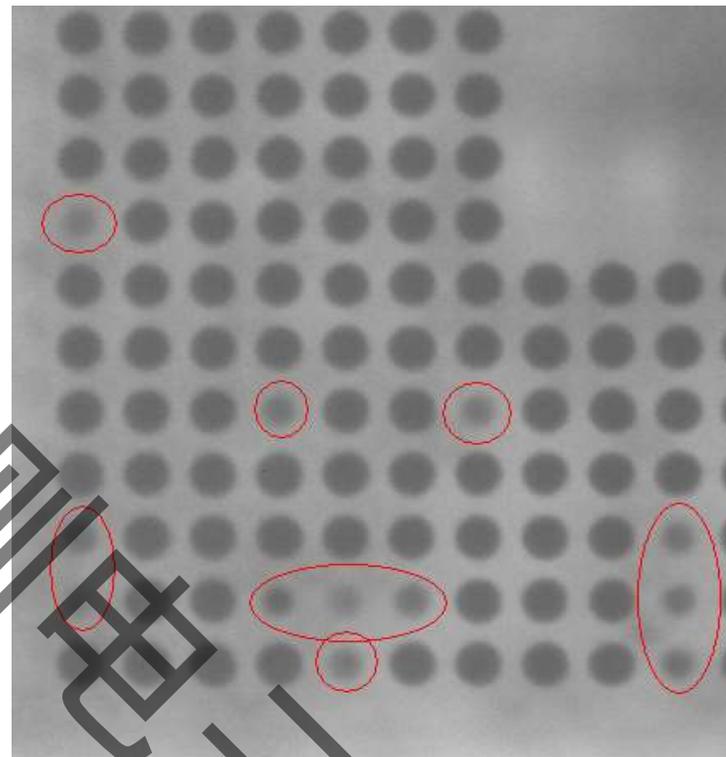
- 所有的球都清晰
- 球的球径大小一致



有缺陷的BGA图象

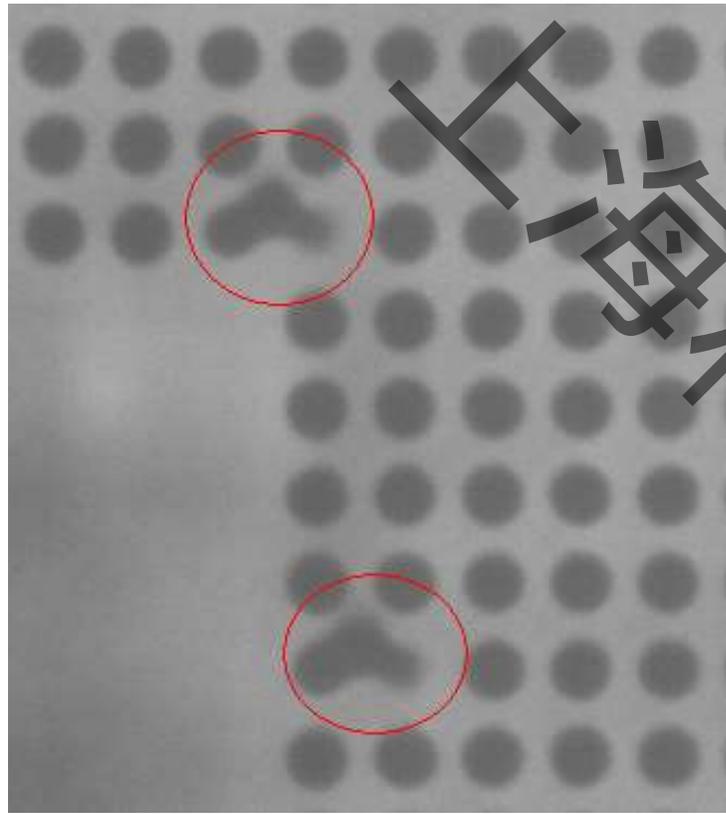


BGA错位

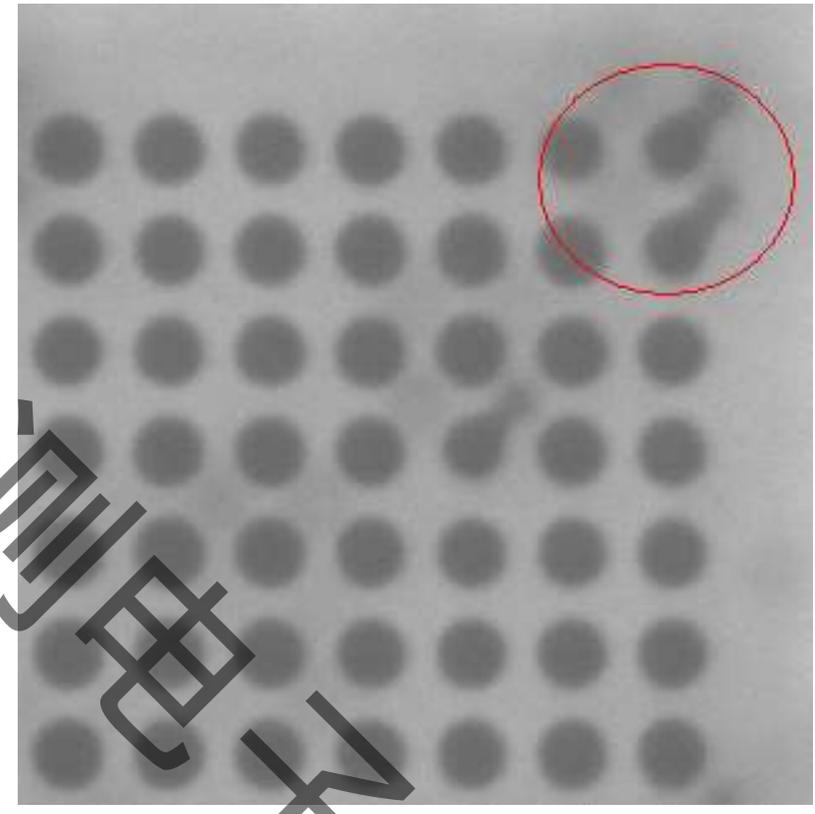


BGA少锡

有缺陷的BGA图象

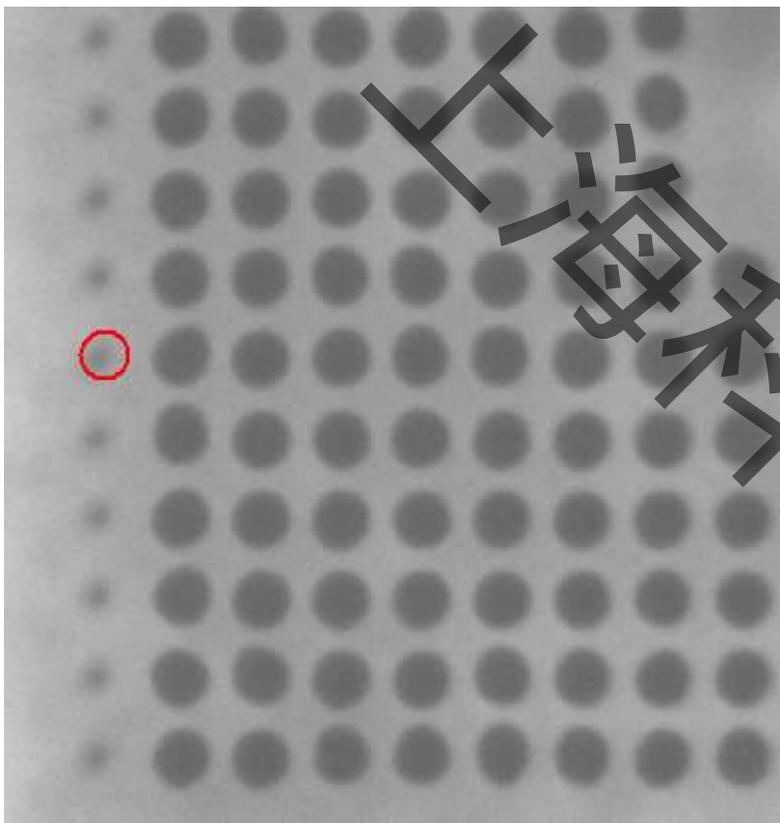


BGA桥接

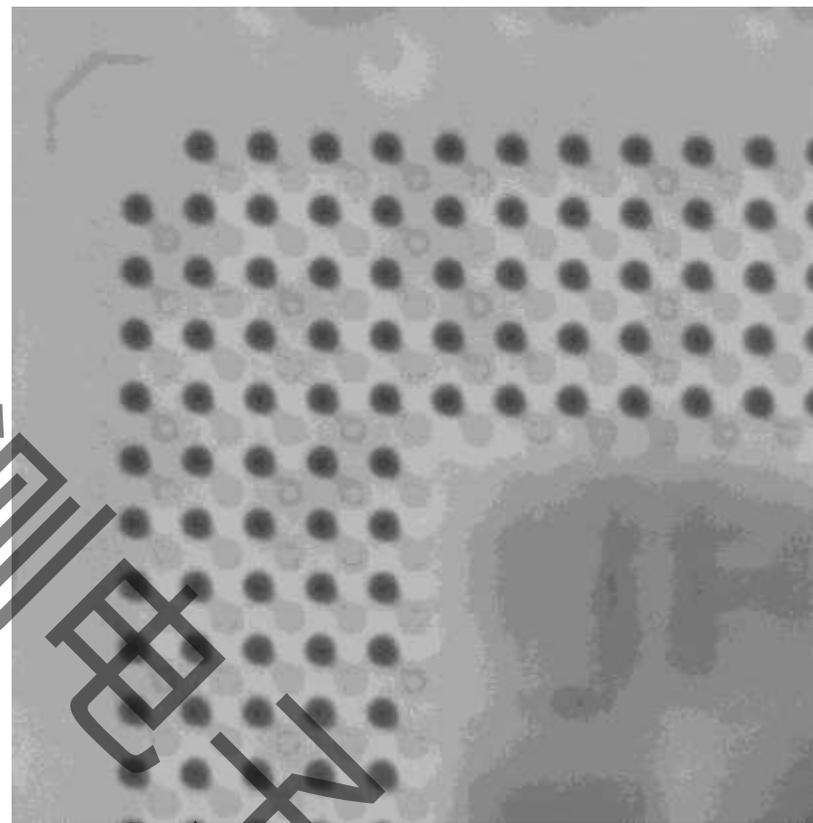


BGA拉尖

有缺陷的BGA图象

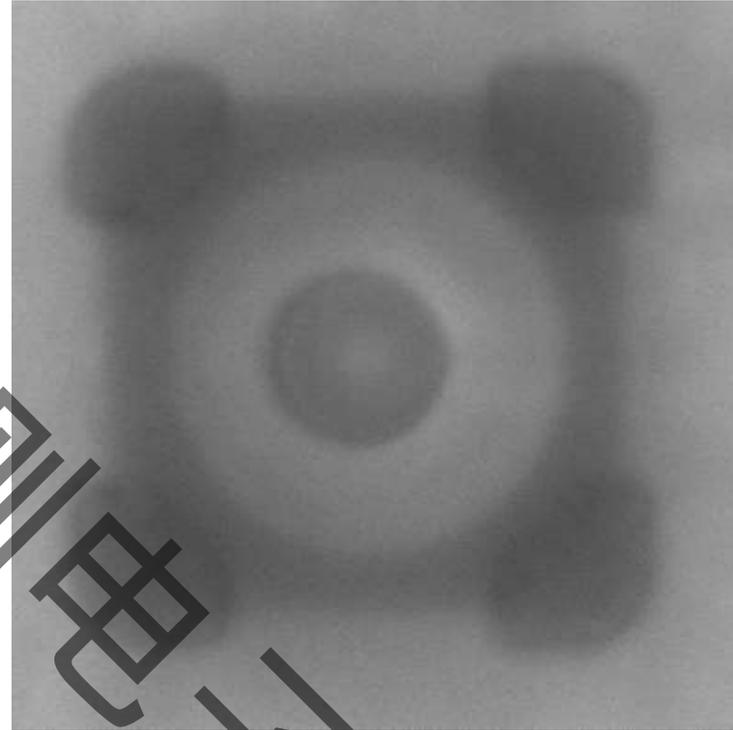
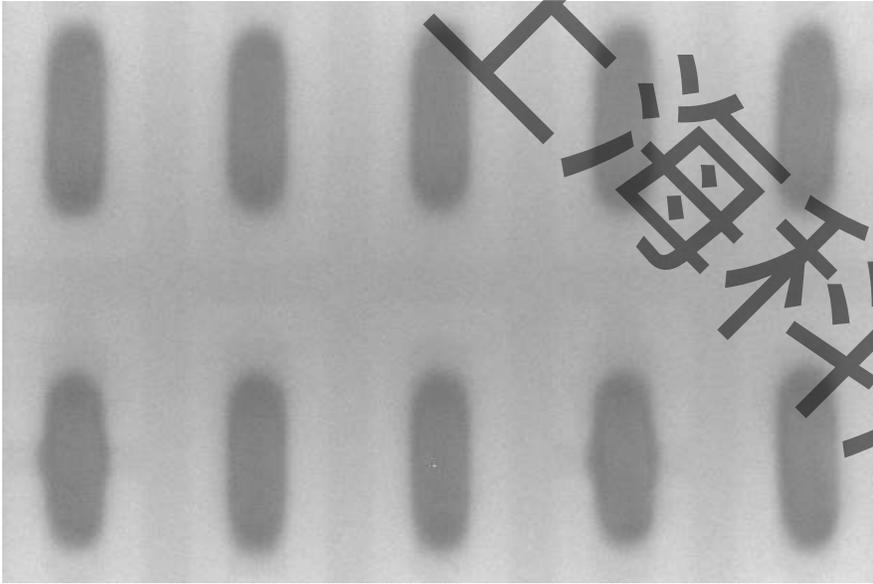


BGA整体错位一排

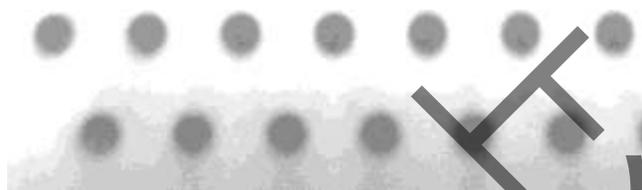


BGA 丢失

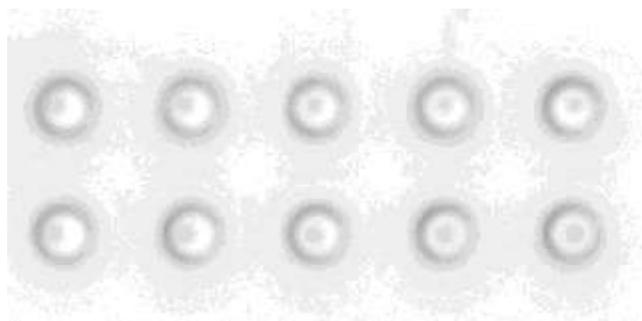
好的连接器图象



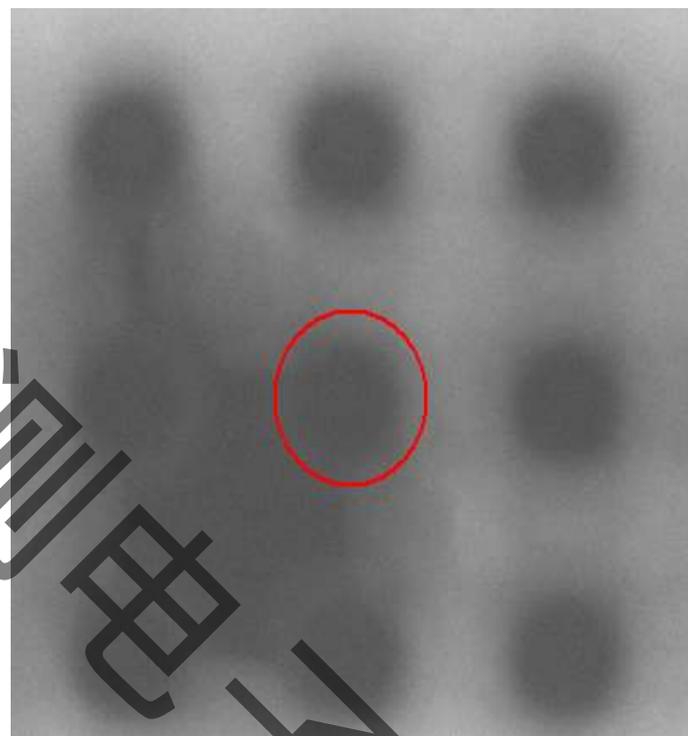
PTH元件



好的PTH 元件

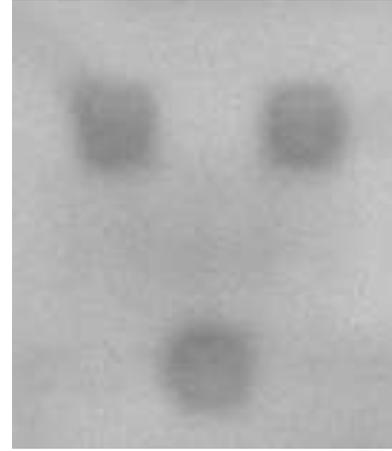
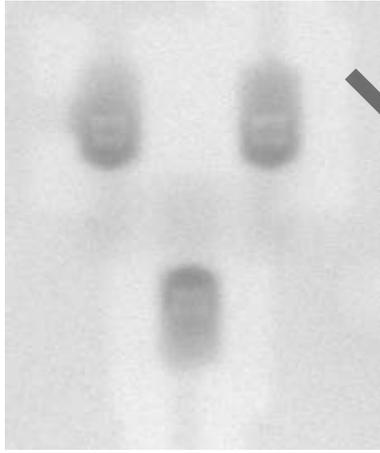


PTH元件丢失



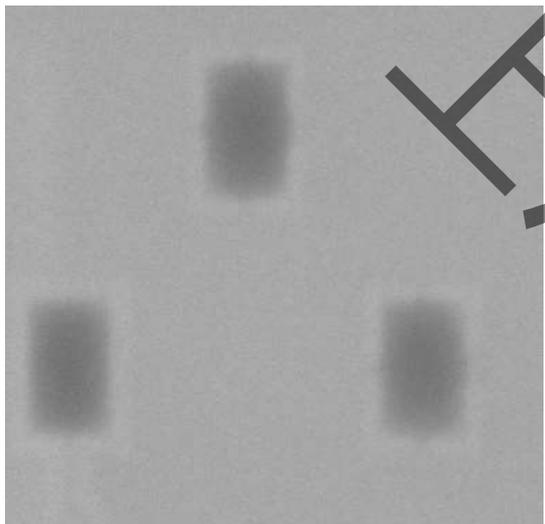
PTH元件桥接

好的三极管图象

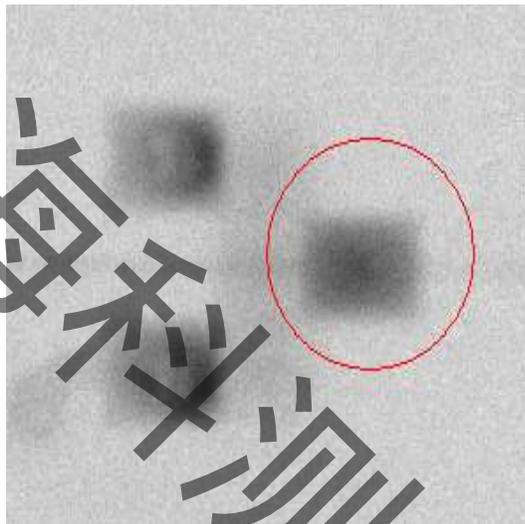


上海科测电子

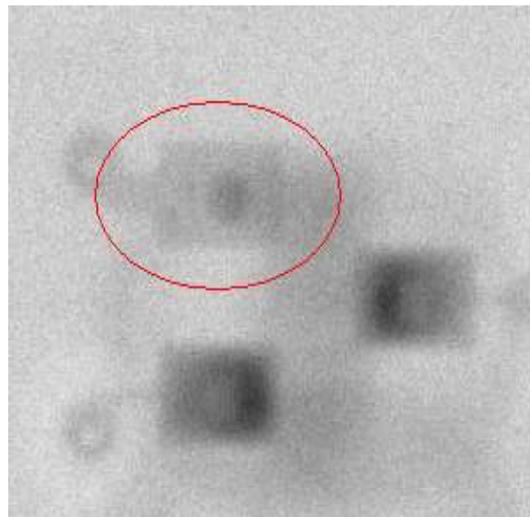
有缺陷的三极管图象



三极管丢失

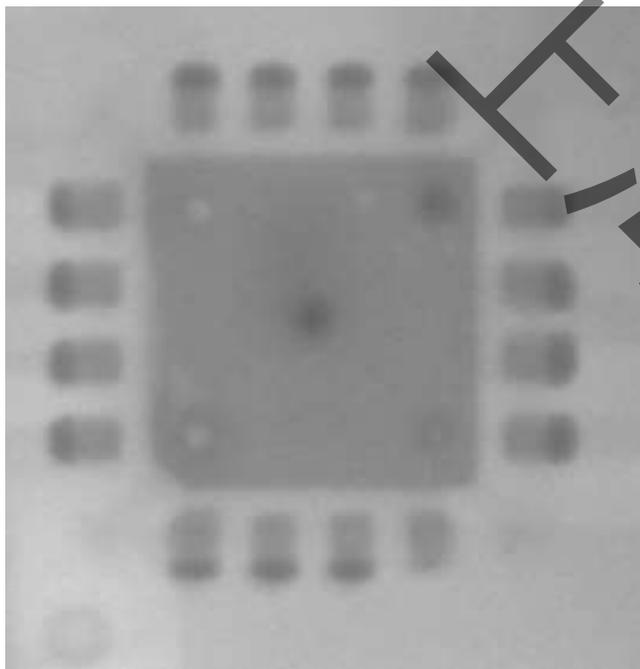


三极管开路

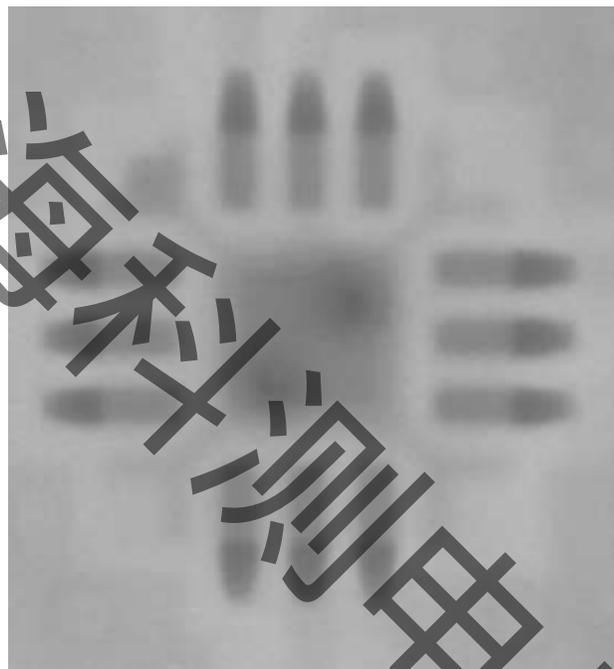


三极管少锡

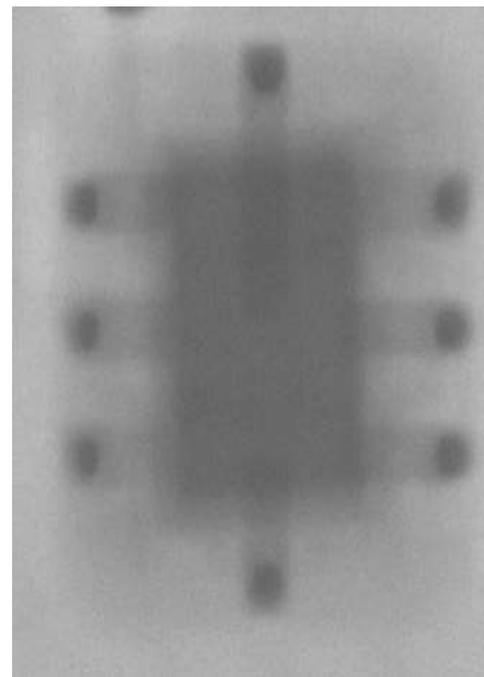
其它类型元件好的图象



IC (1)



IC (2)

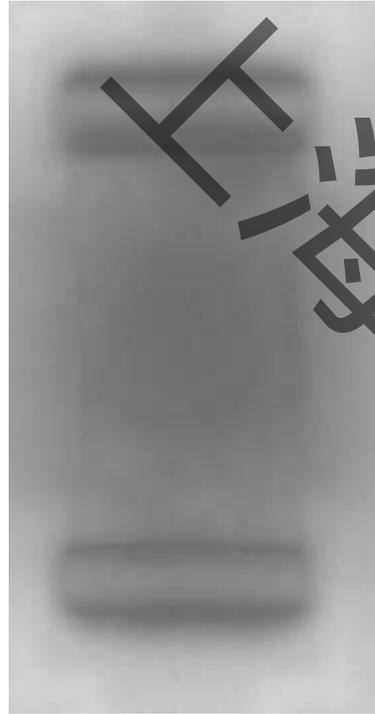


晶振

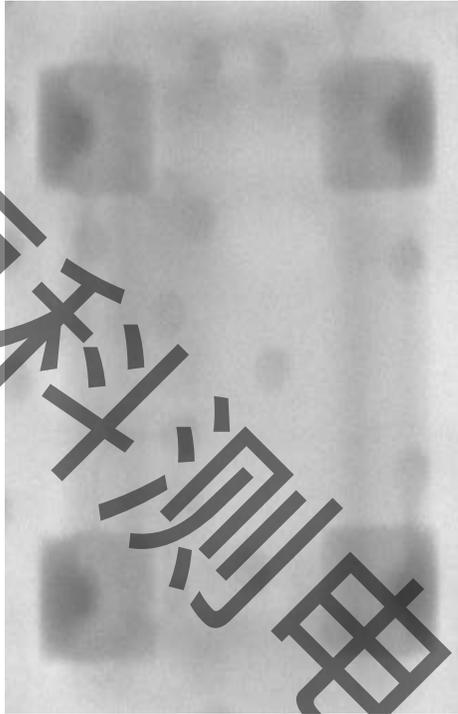
其它类型元件好的图象



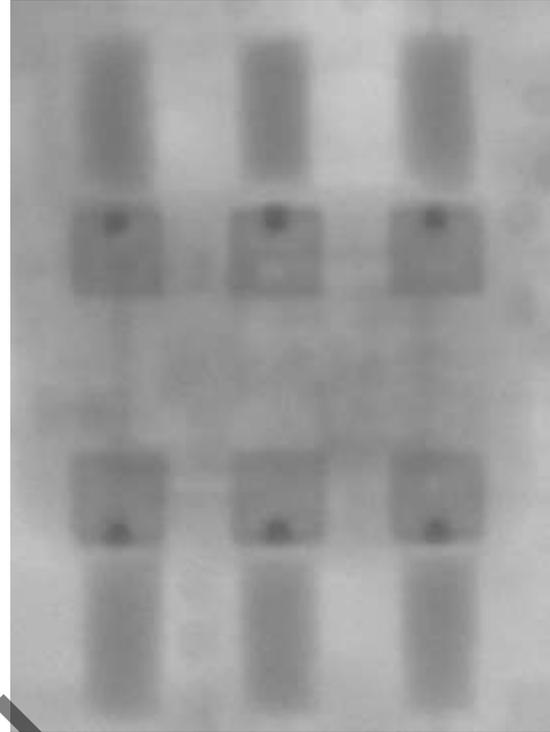
二极管



电感

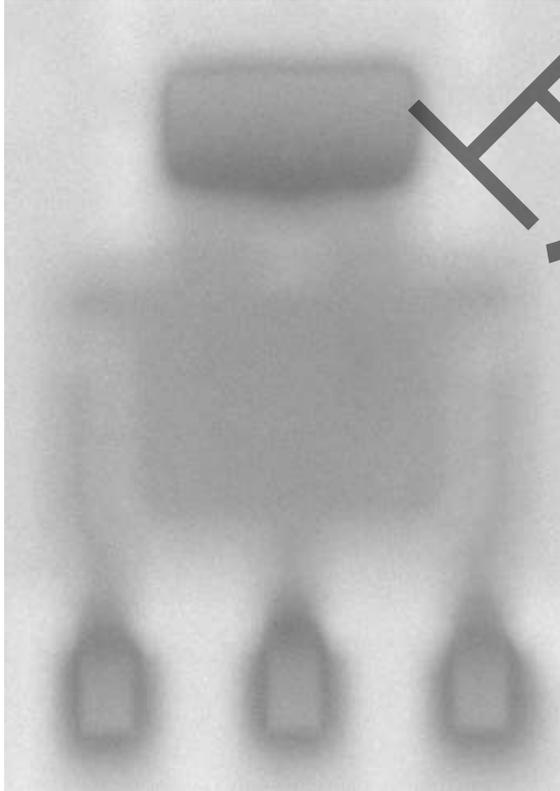


晶振

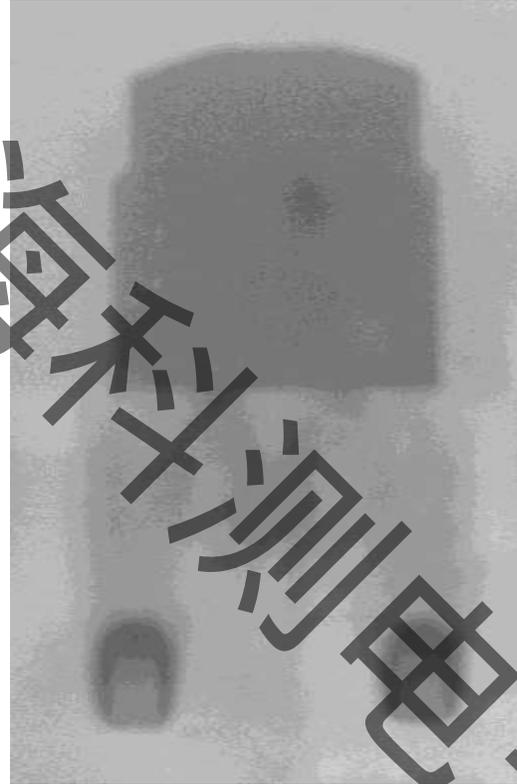


晶振

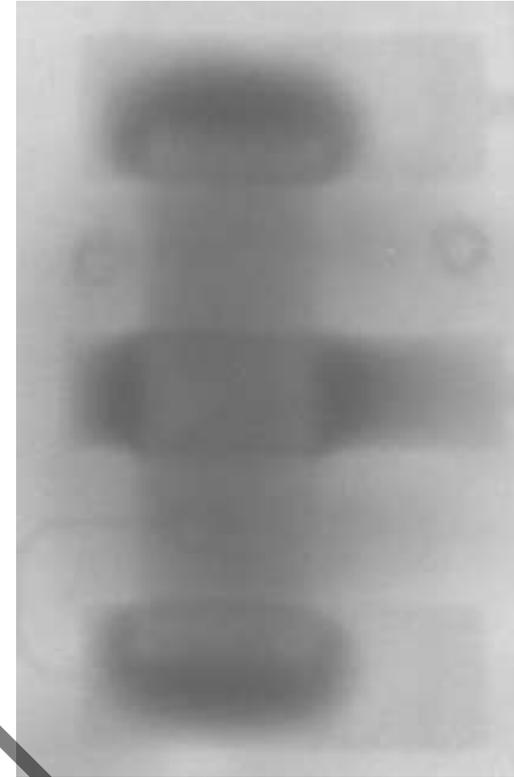
其它类型元件好的图象



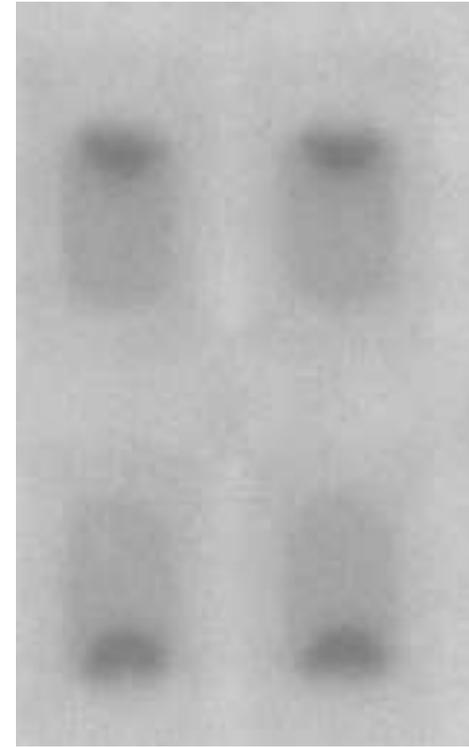
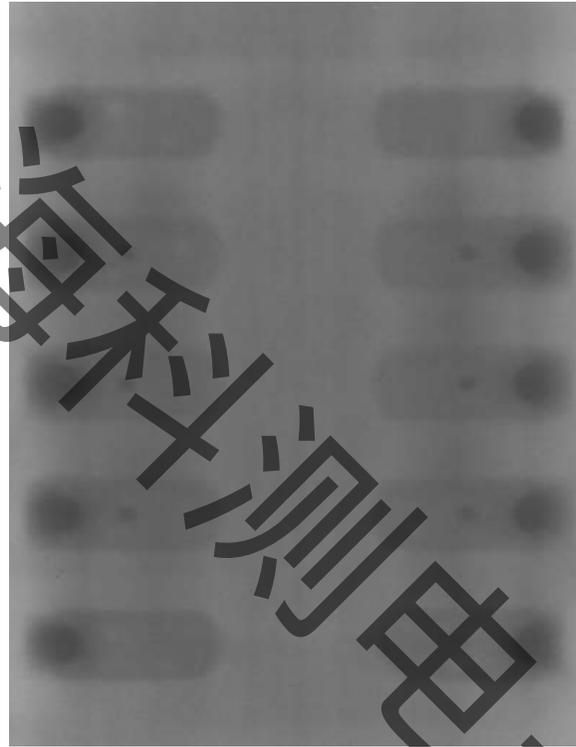
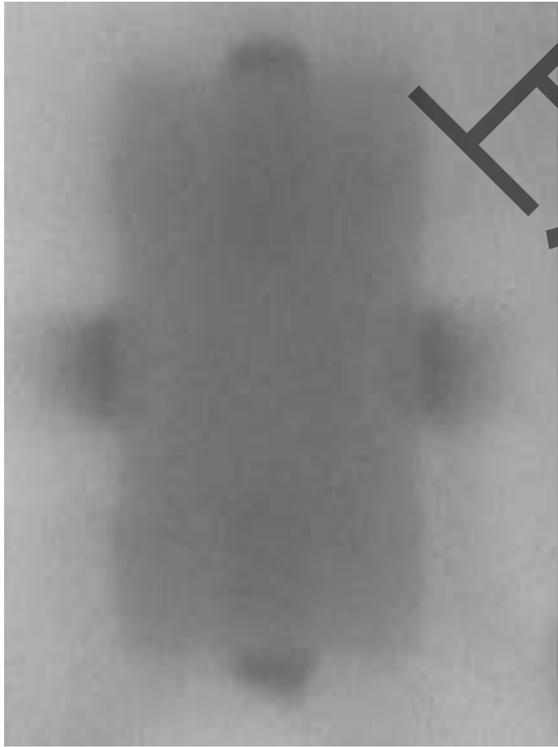
S O T 元件



S O T 元件



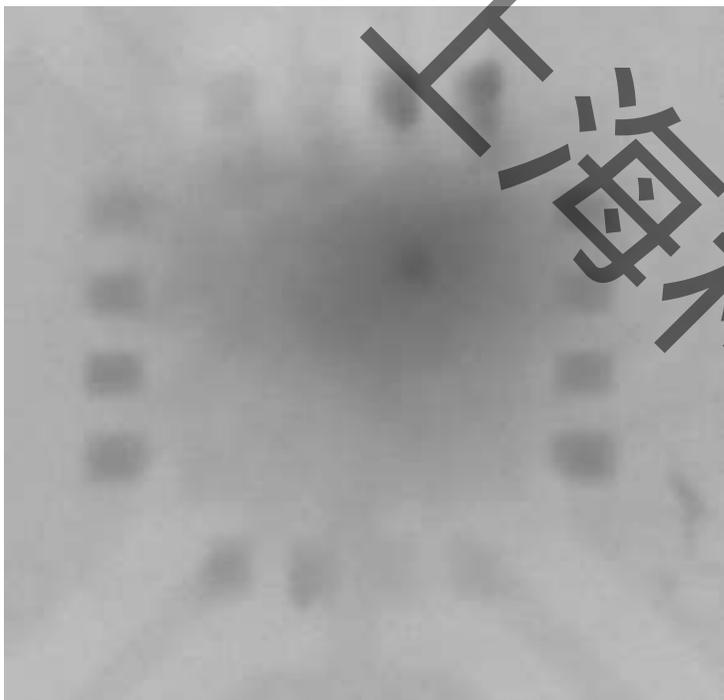
其它类型元件好的图象



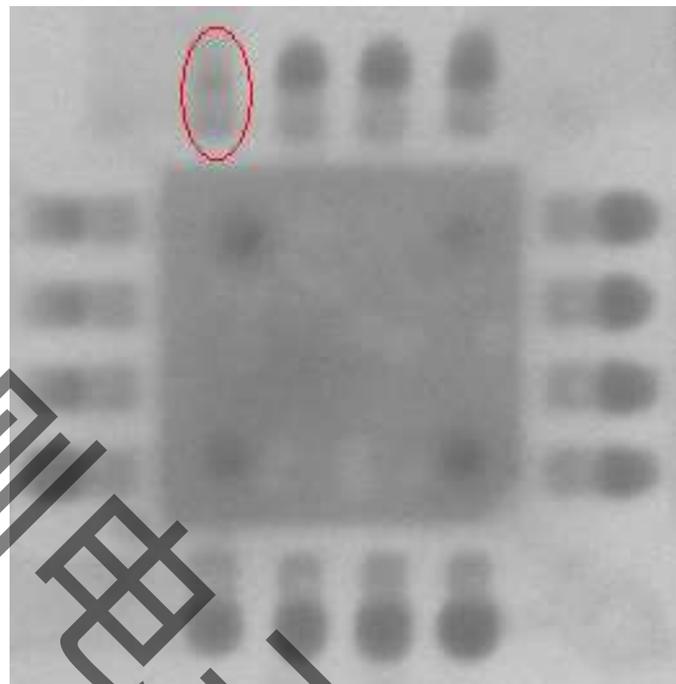
晶振

晶振

有缺陷的图象

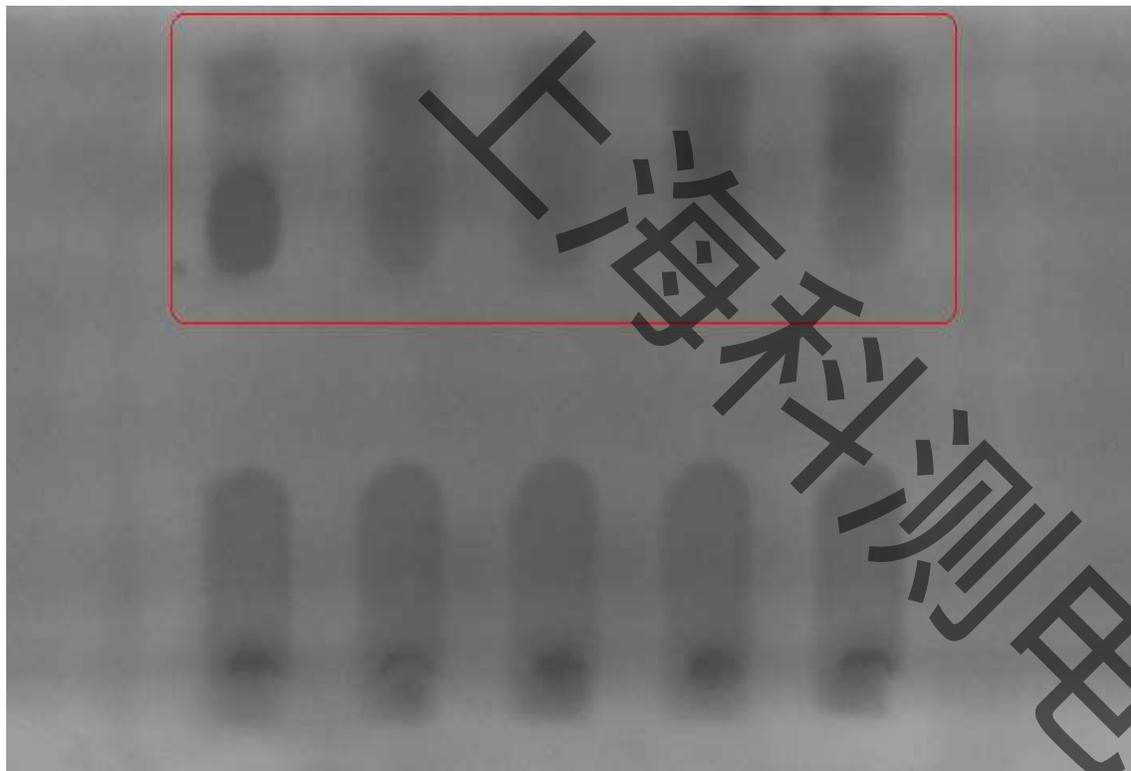


元件丢失



元件少锡

有缺陷的图象



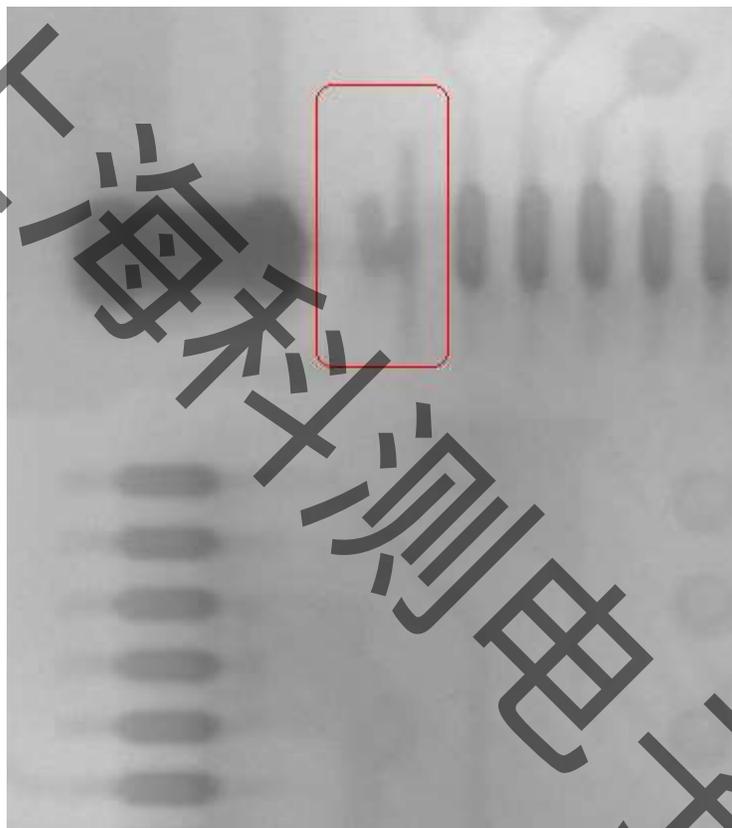
← 元件开路

- 灰度没有变化
- 没有圆弧
- 与下排引脚比较有明显不同
- 需查看PCB是否有元件丢失的嫌疑

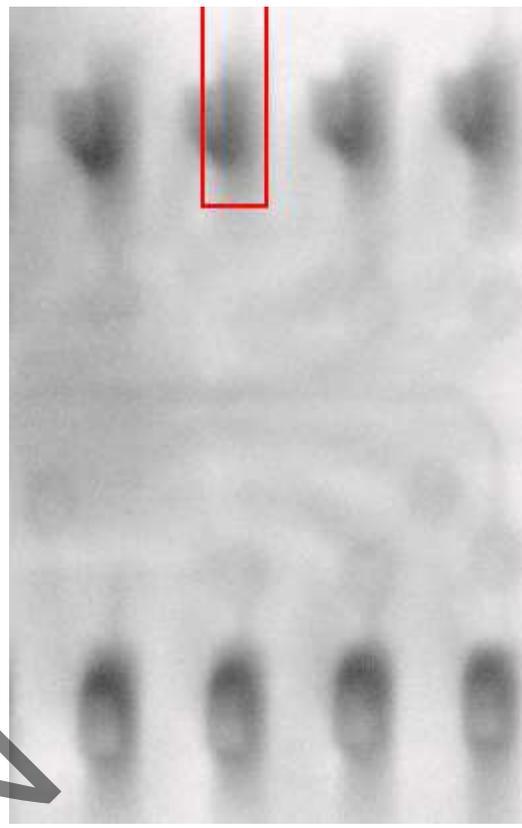
有缺陷的图象



IC 丢失

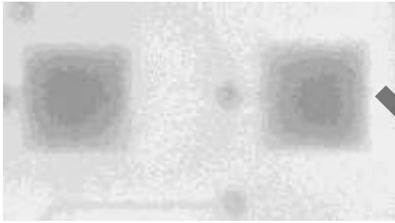


IC 引脚弯曲

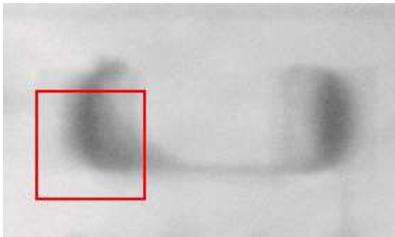


IC 错位

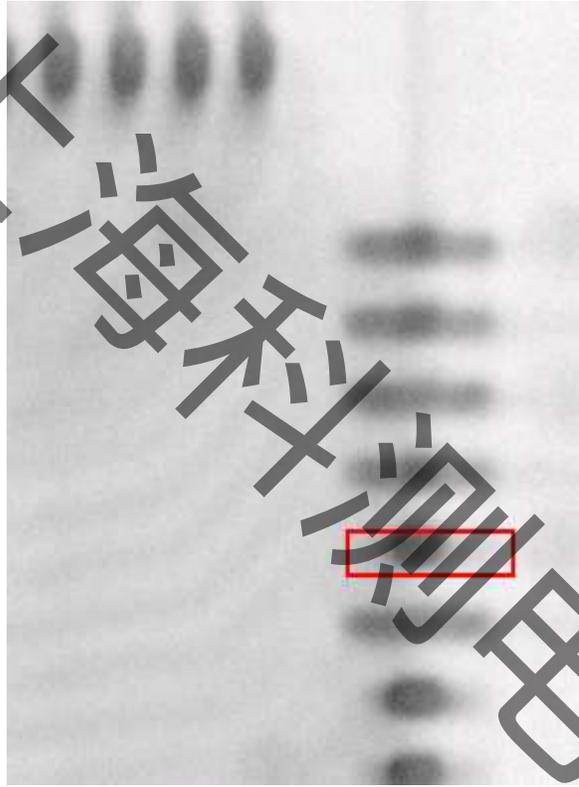
有缺陷的图象



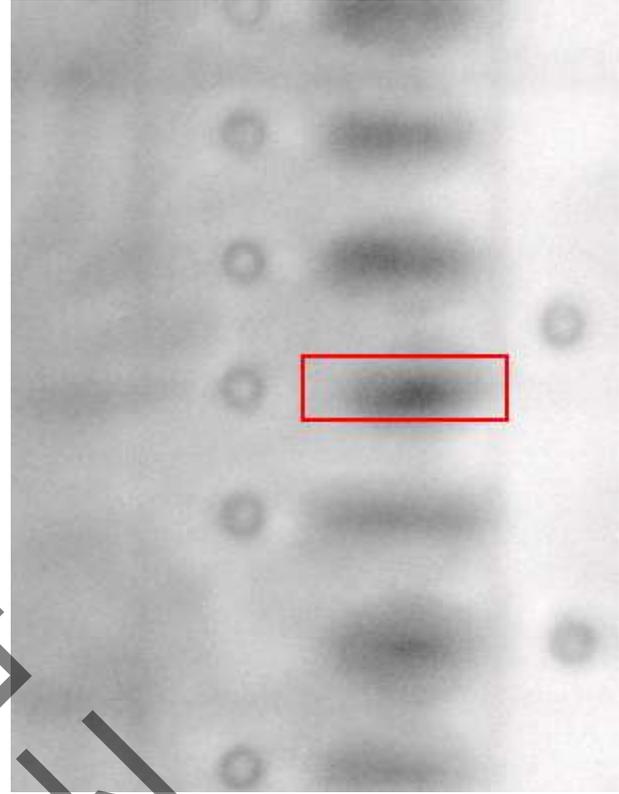
CHIP 元件丢失



CHIP 元件损坏

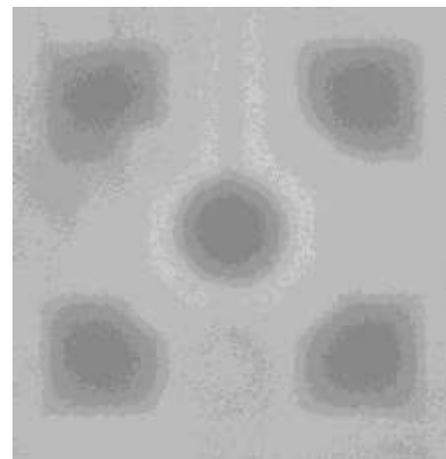
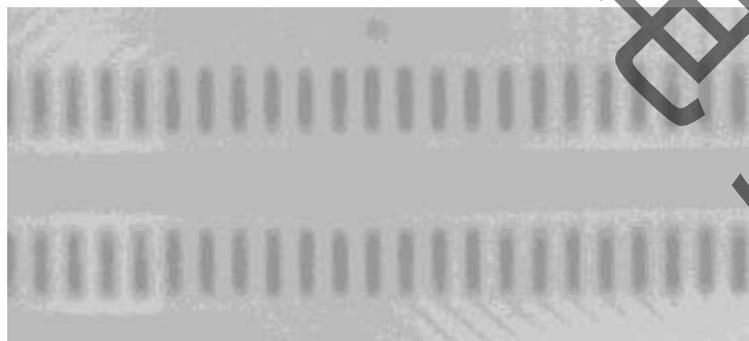
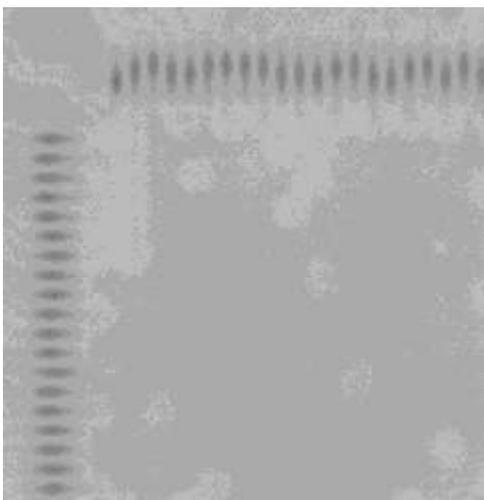
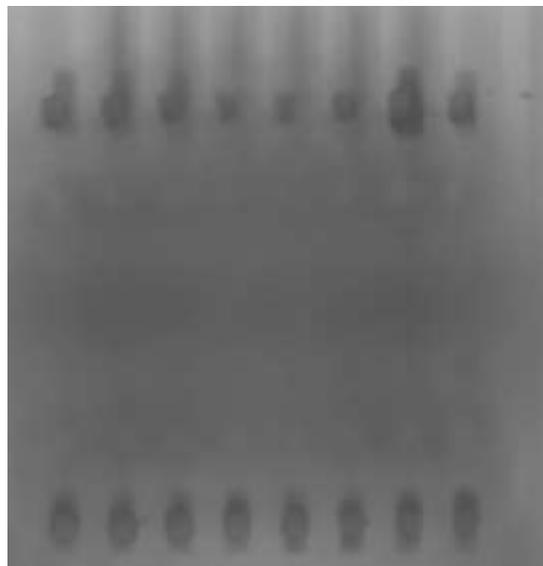
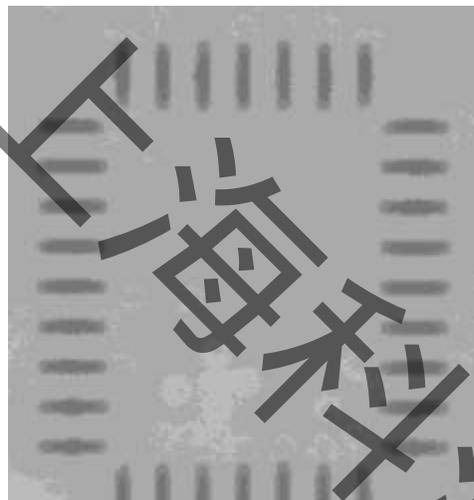
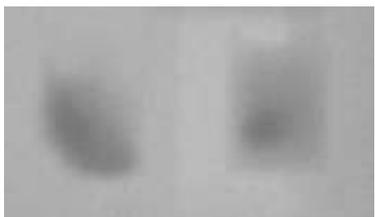


IC引脚抬高少锡



IC少锡

有缺陷的图象



THE END

谢谢!



Solutions for Board Test Agilent3070|Teradyne TestStation ICT|ViTrox AOLAXI|TAKAYA Flying probe | Goepel JTAG