

CircuitGuard AI

PCB Defect Detection Report

Report ID:	RPT-A7E61F46
Generated On:	2025-11-17 22:14:38
Model:	ResNet50 (custom)
Device:	cpu

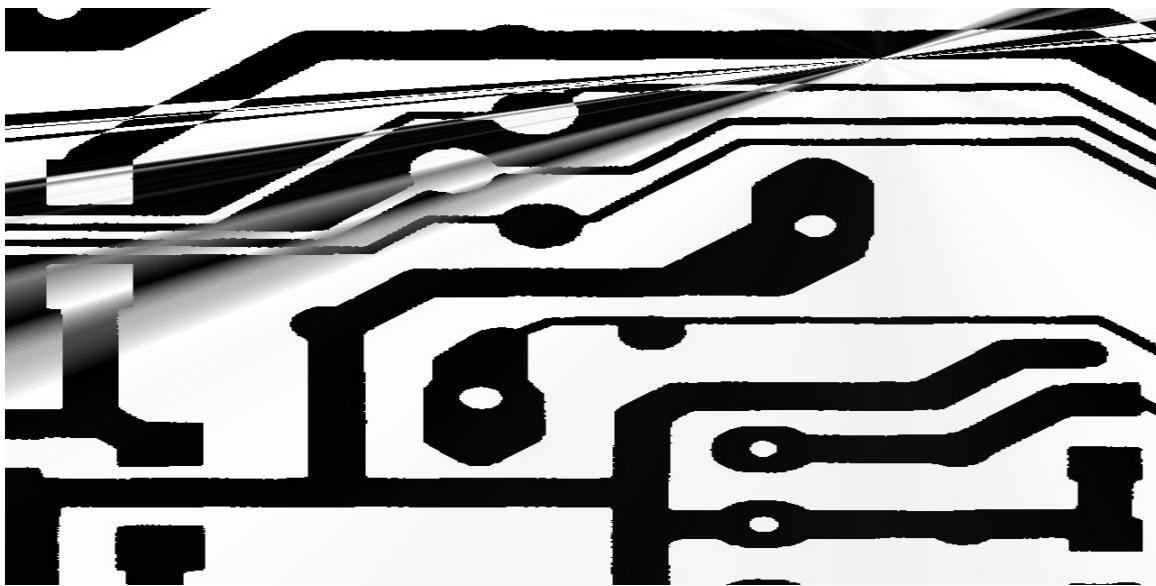
Executive Summary

Detected 5 defect(s). High:2, Medium:3, Low:0. Avg conf: 76.25%.

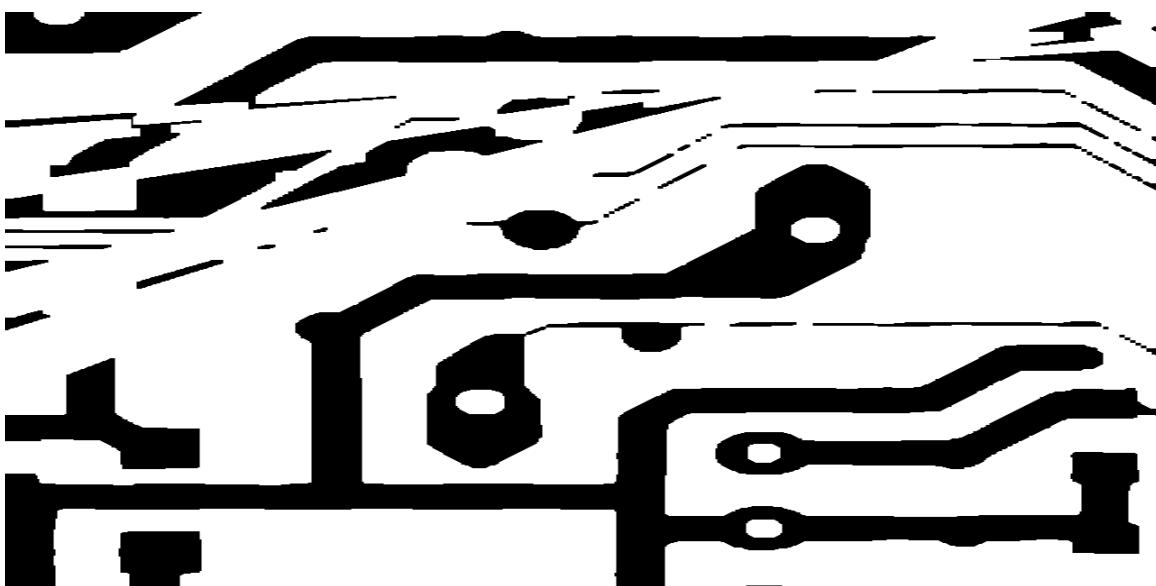
Metric	Value
Total Defects	5
High Confidence (>=80%)	2
Medium Confidence (60–80%)	3
Low Confidence (<60%)	0
Average Confidence	76.25%

Input Images & Maps

Difference Map

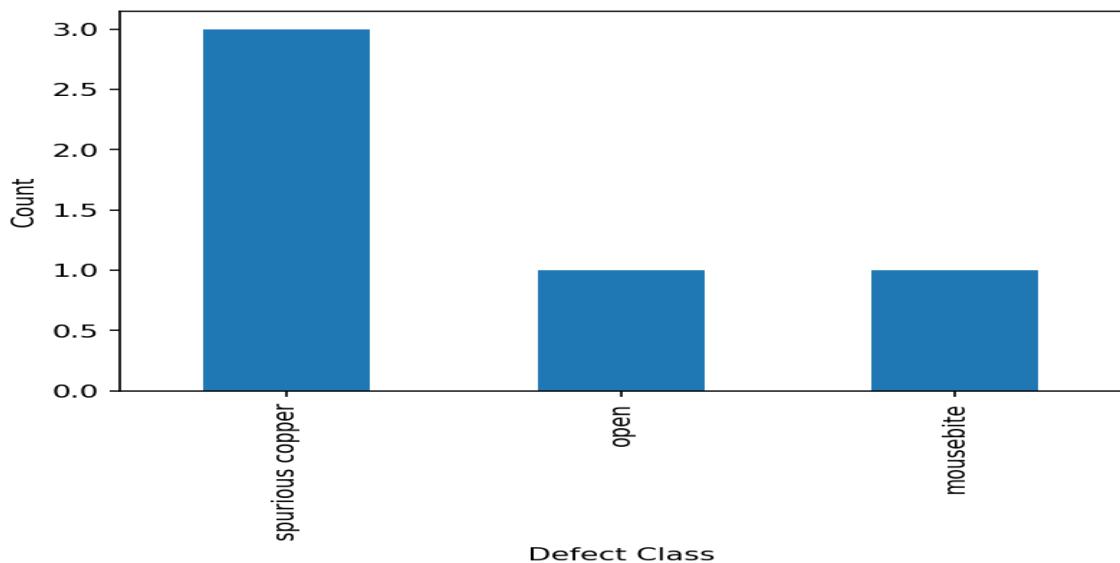


Binary Mask

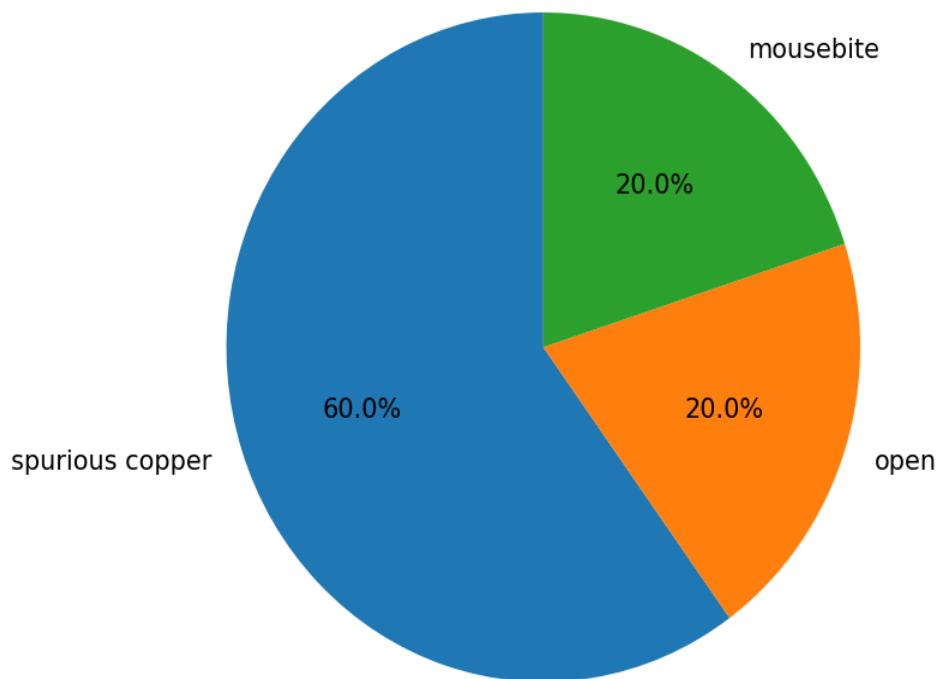


Statistical Charts

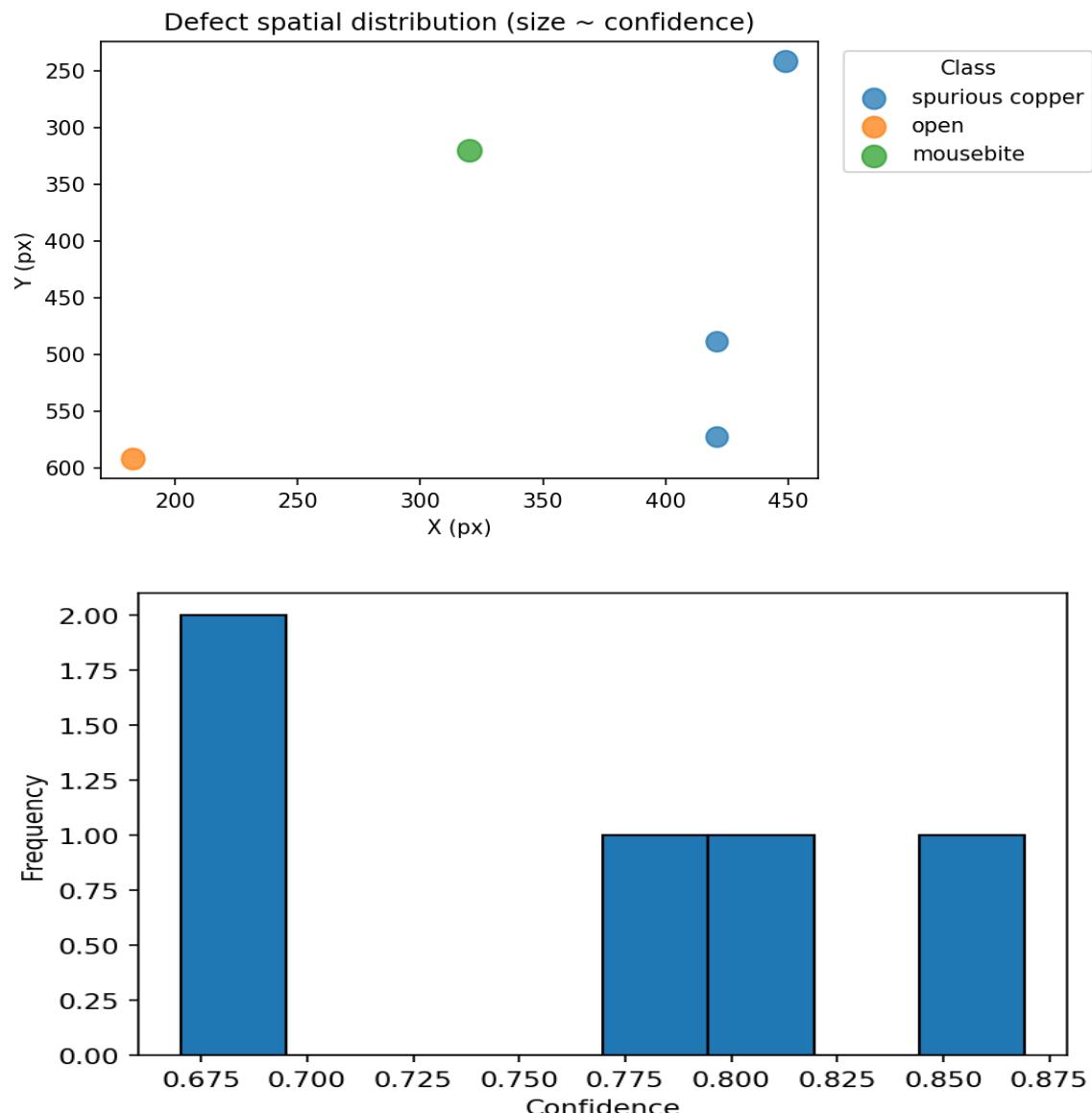
Defect Count by Class



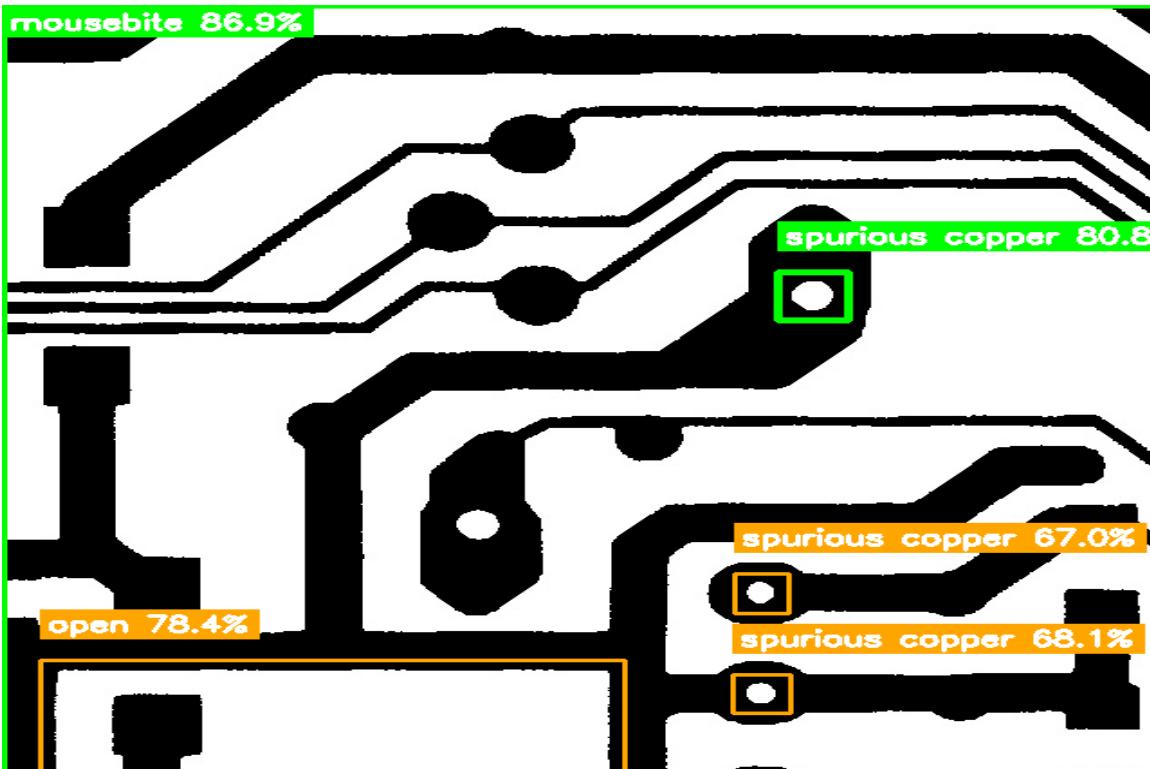
Defect Distribution



Spatial Distribution & Confidence



Annotated PCB & Defect Table



ID	Type	Confidence	Position (X,Y)	Size (WxH)
#1	spurious copper	68.1%	(421,573)	32x32
#2	open	78.4%	(183,592)	324x95
#3	spurious copper	67.0%	(421,489)	30x33
#4	spurious copper	80.8%	(449,242)	39x40
#5	mousebite	86.9%	(320,320)	640x640

Recommendations

Inspect high-confidence regions first. If too many false positives, increase min ROI area or confidence threshold.

Conclusion

Automated inspection completed in 2.31 seconds.