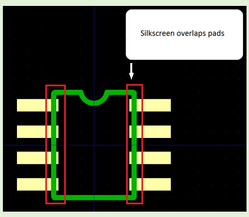
PCB Silkscreen Mistakes Checklist

Practical PCB DFM Inspection Guide (2026)

Why PCB Silkscreen Design Matters? Poor PCB silkscreen design can lead to:

- ✔ Component identification errors
- ✔ AOI inspection failures
- ✔ Assembly confusion
- ✔ Rework delays
- ✔ CAM clipping during fabrication
- ✔ Reduced PCB maintainability

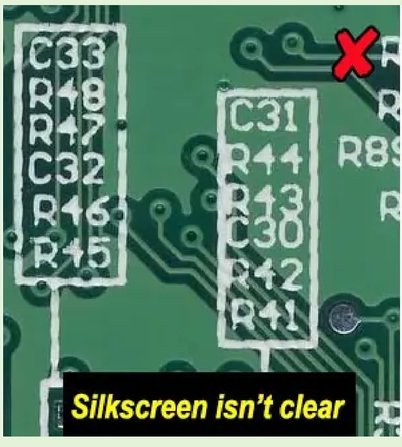


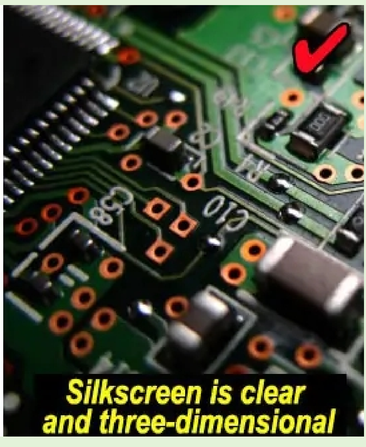
Common Silkscreen DFM Mistakes

Mistake	Recommended	Manufacturing Risk
Text overlaps pads	≥4–6 mil clearance	CAM clipping
Text too small	≥1.0 mm height	Unreadable legend
Thin line width	≥0.15 mm	Broken characters
Missing polarity marks	Always visible	Assembly errors
Silkscreen over vias	Avoid overlap	Ink removal
Random text orientation	Keep consistent	AOI slowdown

Recommended PCB Silkscreen Parameters

Parameter	Preferred Value
Text Height	1.2–1.5 mm
Minimum Text	≥1.0 mm
Line Width	0.18–0.20 mm
Pad Clearance	≥4–6 mil
Via Clearance	≥4 mil
Solder Mask Opening	≥6 mil





AOI / Manufacturing Notes

- ✔ Improves AOI readability
- ✔ Reduces assembly confusion
- ✔ Prevents CAM clipping
- ✔ Improves PCB maintainability

Final DFM Checklist

- ✔ Run silkscreen DRC
- ✔ Verify polarity marks
- ✔ Check Top/Bottom layers
- ✔ Review CAM preview
- ✔ Confirm actual-size readability

Related PCB Engineering Resources

PCB Silkscreen DFM Checklist
Common PCB Silkscreen Mistakes
PCB Silkscreen Design Guidelines
PCB Silkscreen Printing Methods