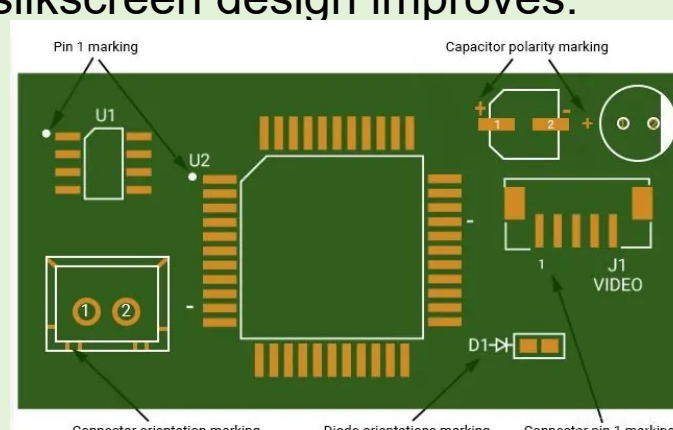


PCB Silkscreen Font Size & Clearance Chart

Quick Reference Guide for PCB Designers & Engineers

Why PCB Silkscreen Design Matters? Proper PCB silkscreen design improves:

- ✓ Component identification
- ✓ SMT assembly accuracy
- ✓ AOI inspection efficiency
- ✓ PCB debugging and maintenance
- ✓ Manufacturing readability



PCB Silkscreen Font Size Recommendations

Parameter	Recommended Value	Notes
Standard Text Height	≥1.0 mm (40 mil)	Recommended for readability
Ideal Text Height	1.2–1.5 mm	Best for assembly & inspection
Minimum Readable Text	~0.8 mm	Manufacturer-dependent
Font Style	Simple sans-serif	Avoid decorative fonts
Character Spacing	Moderate	Prevent ink merging

PCB Silkscreen Line Width Guidelines

Parameter	Recommended Value	Notes
Minimum Line Width	≥0.15 mm (6 mil)	Industry standard
Preferred Line Width	0.18–0.20 mm	Better print consistency
Thin Line Risk	<6 mil	May become unreadable

PCB Silkscreen Clearance Rules

Clearance Type	Recommended Value	Why It Matters
Pad Clearance	≥4–6 mil	Prevent silkscreen clipping
Via Clearance	≥4 mil	Avoid overlap during CAM processing
Solder Mask Opening Clearance	≥6 mil	Improve manufacturability
Component Body Spacing	Maintain readability	Prevent overcrowding

Common PCB Silkscreen Problems

Problem	Cause	Result
Missing Silkscreen	Overlap with pads	CAM clipping
Unreadable Text	Font too small	Inspection difficulty
Broken Characters	Thin line width	Poor printing quality
Assembly Errors	Missing polarity marks	Incorrect component placement

Recommended Best Practices

- ✓ Use text height ≥1.0 mm whenever possible
- ✓ Maintain ≥4–6 mil clearance from pads and vias
- ✓ Use line width ≥6 mil
- ✓ Avoid printing over solder mask openings
- ✓ Clearly mark polarity and Pin 1 indicators
- ✓ Verify readability at actual PCB size
- ✓ Run DRC checks before Gerber export



Manufacturing Notes

Different PCB silkscreen printing methods affect legend resolution, readability, and manufacturing consistency.

Printing Method	Resolution	Best For
Screen Printing	Medium	Mass production
LPI	Medium–High	General PCB manufacturing
Inkjet / DLP	High	HDI boards & prototypes

Related PCB Engineering Resources

- [PCB Silkscreen DFM Checklist](#)
- [Common PCB Silkscreen Mistakes](#)
- [PCB Silkscreen Design Guidelines](#)
- [PCB Silkscreen Printing Methods](#)