Solder mask kit: Theory of Operation

MSK | Blaide product line | 17 November 2026 | Design only: nothing built or tested

Mask area is the board minus the pad openings. The dispenser fills that area with contour-parallel passes; the laser then rasters it. Energy per area is laser power divided by speed times line pitch, and the 0.25 W laser delivers about seventeen times the typical dose at full speed, so curing runs at low duty.

Design

- Mask area = board minus pad openings (from the mask layer, or pads grown 0.1 mm)
- Cure by laser raster at 0.12 mm line pitch
- Calibration coupon: five pad pairs with gaps from 0.2 to 0.6 mm
- Cartridge identity 22 k selects laser cure and a 25 micron film