Application of MCT SD 0802 for an 8 layer DRAM

3D dispensing test – line width 50 um
MCT SD 0802 test for 8 layers

Confidential to MicroCoat Technologies
McKinney, TX
Total pad numbers: 50

- Single pad side view
- Layer 8th
- Height 75 x 8 um
- Layer 1st

- Dispense end point
- Wire ~65 um
- MCT SD 0802
- Line width 50 um
- Dispense start point
- Finger pads
- Substrate
Most Important part of deposition is foot pad length/thickness
Adhesive cracking is due to too little amount of adhesive where stack meets PCB
Jet Spray causes uneven line widths
Jet Spray inability to produce homogenous line widths

1. Unstable dispensing of Jet valve
   a. Thickness: too thin area
   b. Shape: relative narrow neck area
   c. Narrow process window

2. Conductive paste:
   a. Big "void". This conductive paste cannot flow into a crevice. No "down to the hole" feature.
   b. 4% Shrinkage makes these area even thinner. Not solvent free.
   c. No flexibility feature. The thin paste area becomes too brittle by TC test and it cracks. CTE problem.
   d. Low power problem, the less conductive material area at base of stack die, it will give higher contact resistance.

Confidential to MicroCoat Technologies
McKinney, TX
SD0802 Dispense on SDRAM
Very Successful!!