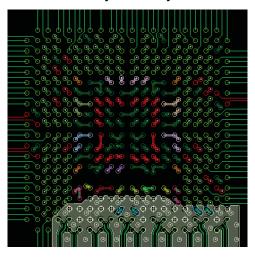


381-Ball caBGA BGA Breakout and Routing Example

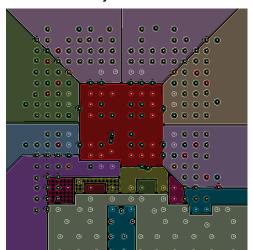
This example places an ECP5 FPGA in a 17 mm x 17 mm, 0.8 mm pitch, 381-ball caBGA package (LFE5UM-85F-MG381) in a 4-layer stack up with maximum I/O utilization. This example utilizes 4-mil traces and 7-mil via drills for BGA escape routing. Two internal layers are used as reference planes.

Figure 24. CAM Artwork Screen Shots, 381-Ball caBGA

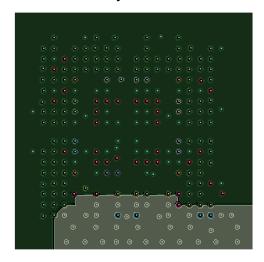
Layer 1 Primary



Layer 3 Power



Layer 2 GND



Layer 4 Secondary

