

HYBRID WIREBONDING PROCEDURE

- Wear grounding straps, lab coat and face mask
- Check that the correct bonding stage is mounted on the wirebonder lab jack at the correct height
- Every time the wirebonder is powered up, a full calibration needs to be done before bonding
- Load the correct bonding program
- Check that there is enough wire on the spool
- Check that the wedge is threaded and clean. If the wedge needs to be cleaned, a full calibration needs to be done before bonding
- Get the hybrid box from the cabinet
- Take the hybrid out of the box (hybrid is mounted on carrier plate)
- Inspect the P.A. for excessive dust and clean it with isopropanol and a foam swab if necessary
- Set the hybrid carrier onto the wire bonding stage and turn the lever to clamp the carrier to the stage
- Scan the barcode and start the database
- Check the number of bonds made thus far with the tool and enter them into the database
- Start the bonding program (the program bonds 6 test bonds, 4 bias bonds and all the signal bonds)
 - o Watch while the machine is bonding to stop it when wires are missed, missing wire detector is set to 5 bonds
 - o If a wire is missed, remove the wiretail, note the number of missed bonds for entry in database
 - o If 3 bonds are missed, stop the program and remove the part from the machine, put the part aside for later evaluation (reject or try to adjust bonding parameters by doing pulltests)
- Index the stage out, release the clamping lever and remove the hybrid carrier from the wire bonding stage
- Place the hybrid carrier under the stereoscope and check the bonds for shorts
- Fix shorts if necessary
- For every 10th part:
 - o Place the hybrid carrier on the pull tester
 - o Pull test the P.A. test structure bonds
- Put the hybrid carrier back into its box
- Put the box back into the cabinet
- Enter the pull test results, number of missed wires and all other information into the database