Bonding instructions for UCSC Hybrid

GENERAL

1) All chips are glued down with non-conductive glue
2) Alignment tool can be taken off after gluing the amplifier chips. Once the alignment tool is off the protective cover fits.

CONTROLER CHIPS (square)

1) There are two controller chips at each end.
2) 5 pads for each controller chip are not bonded.
3) 34 bonds are the same. on each chip

AMPLIFIER CHIPS (long skinny)

1) There are 25 amplifier chips.
2) All amplifier chips need to be precision aligned (for interface with detector panels) to 100 microns (see page 0).
3) Chips should be aligned in Y by pushing against the edge of provided alignment tool
4) Chips should be aligned in X by visual reference (under a microscope) with scribe marks on alignment tool.
5) There are 33 bonds for each chip
6) 28 bonds are the same on every chip
7) 5 bonds vary from chip to chip (not hybrid to hybrid)
8) For five chips (#2,#6,#12,#20 and #22) the second trace form the left is too short and difficult to bond. Don’t bond them (see page: 3,7,13, 21 and 23).
9) In addition there are 8 bonds from chip to chip and 4 bonds from each of the end chips to the hybrid. (page: 1, 25 and 26)