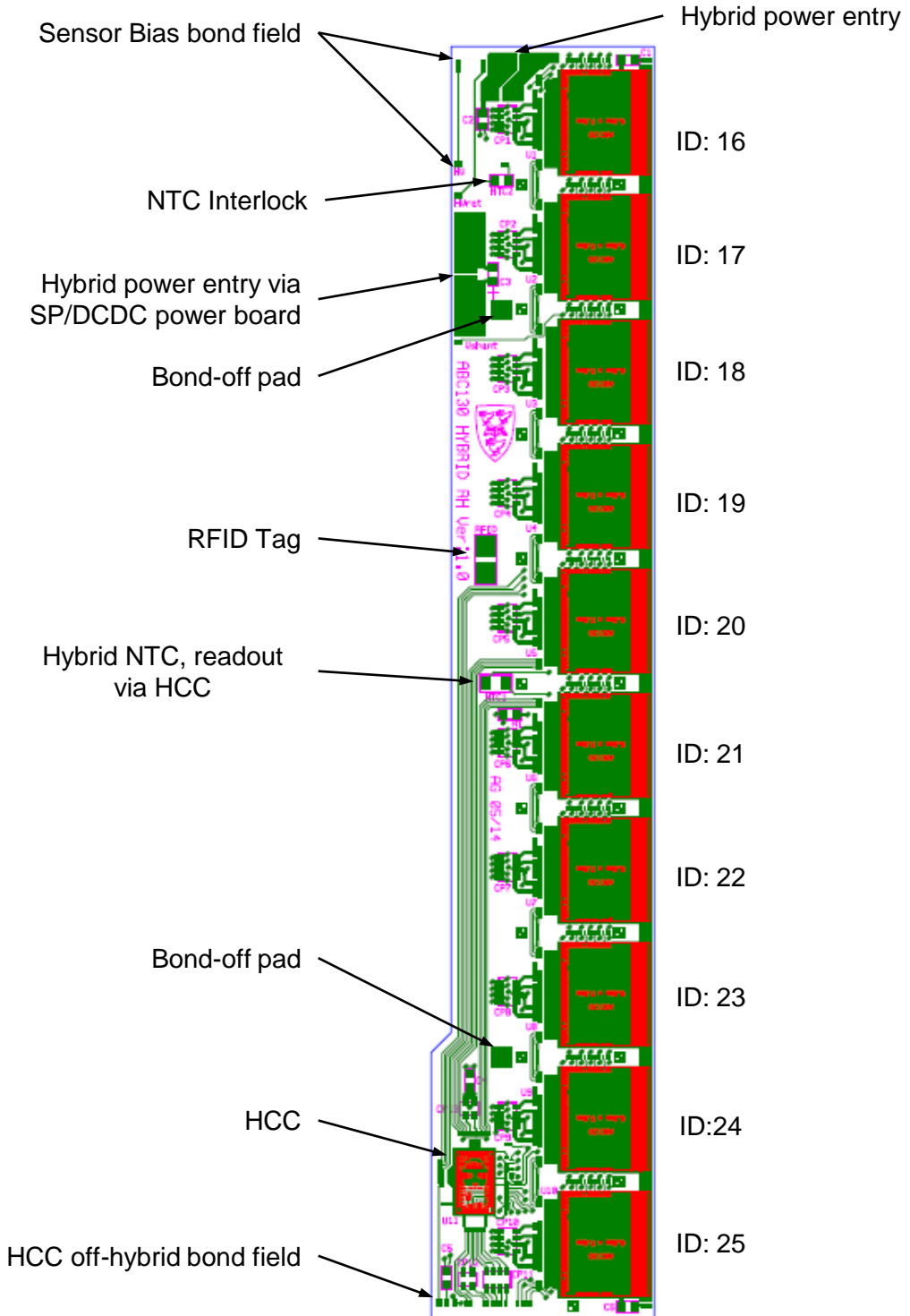


ABC130 Hybrid RH Ver: 1.0 Wire-bonding and Connection detail

Designed for 10 x ABC130s which connect up to a single HCC (for data I/O and monitoring). The readout topology is based on two groups of five ABC130s (ID16 to ID20 and ID21 to ID25), with bi-directional readout, connecting up to the HCC.

There is also the ability to bypass the HCC, to provide readout of a single column of 10 x ABC130s (see page 5).



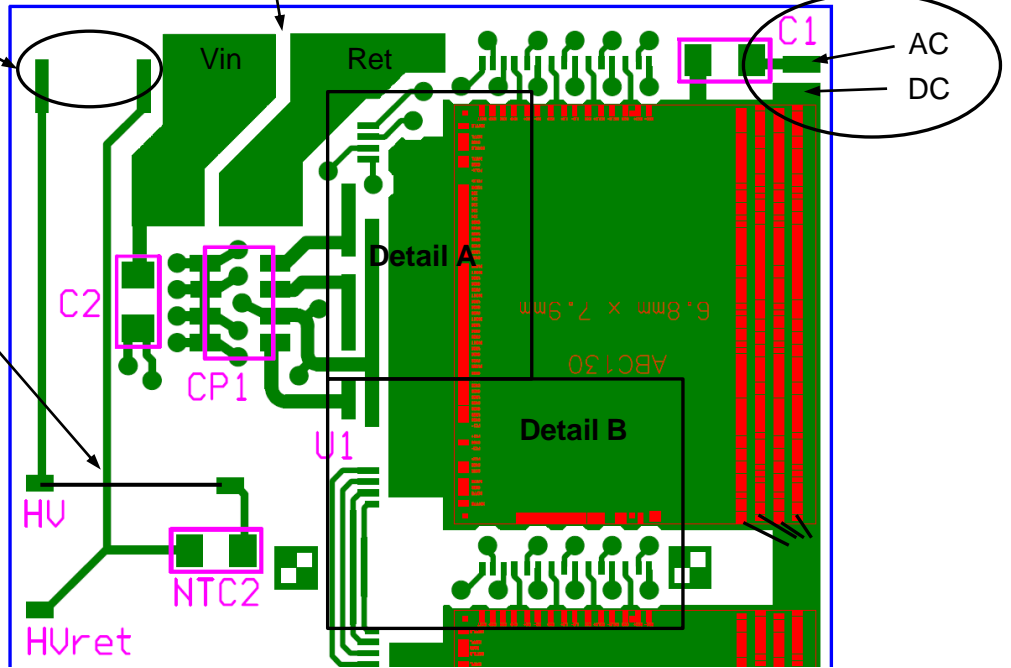
Power entry and Hybrid I/O detail

NTC interlock off-hybrid bond field

Hybrid Power bond field

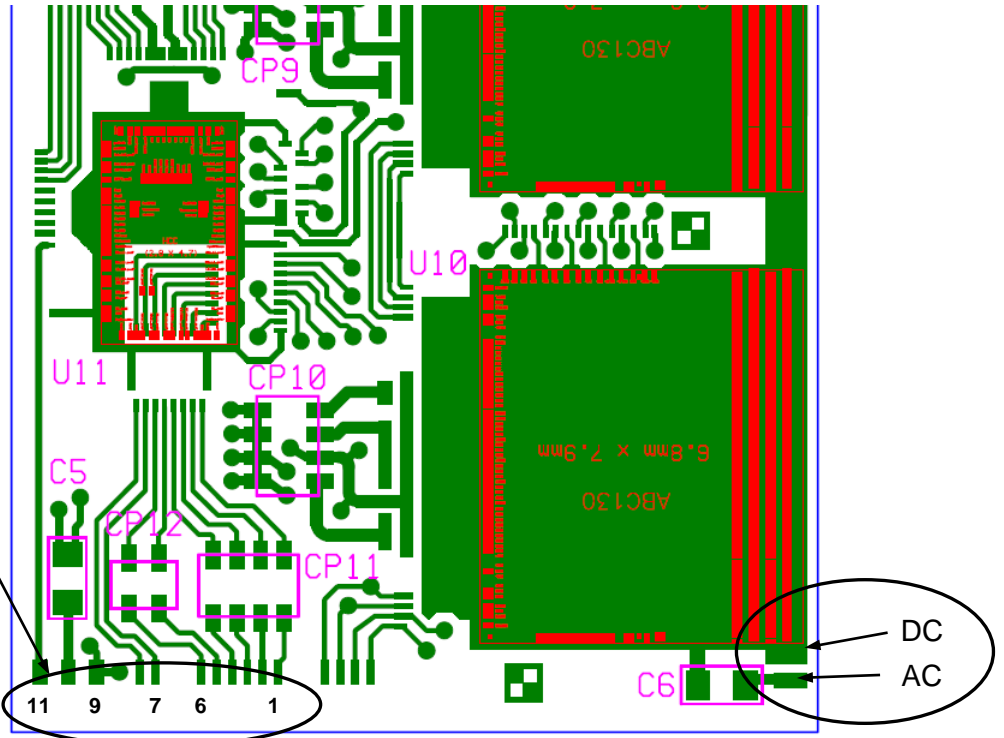
Sensor Strip Bias Connection

Add wire-bond for NTC interlock (remove when not needed)



Bond pad detail

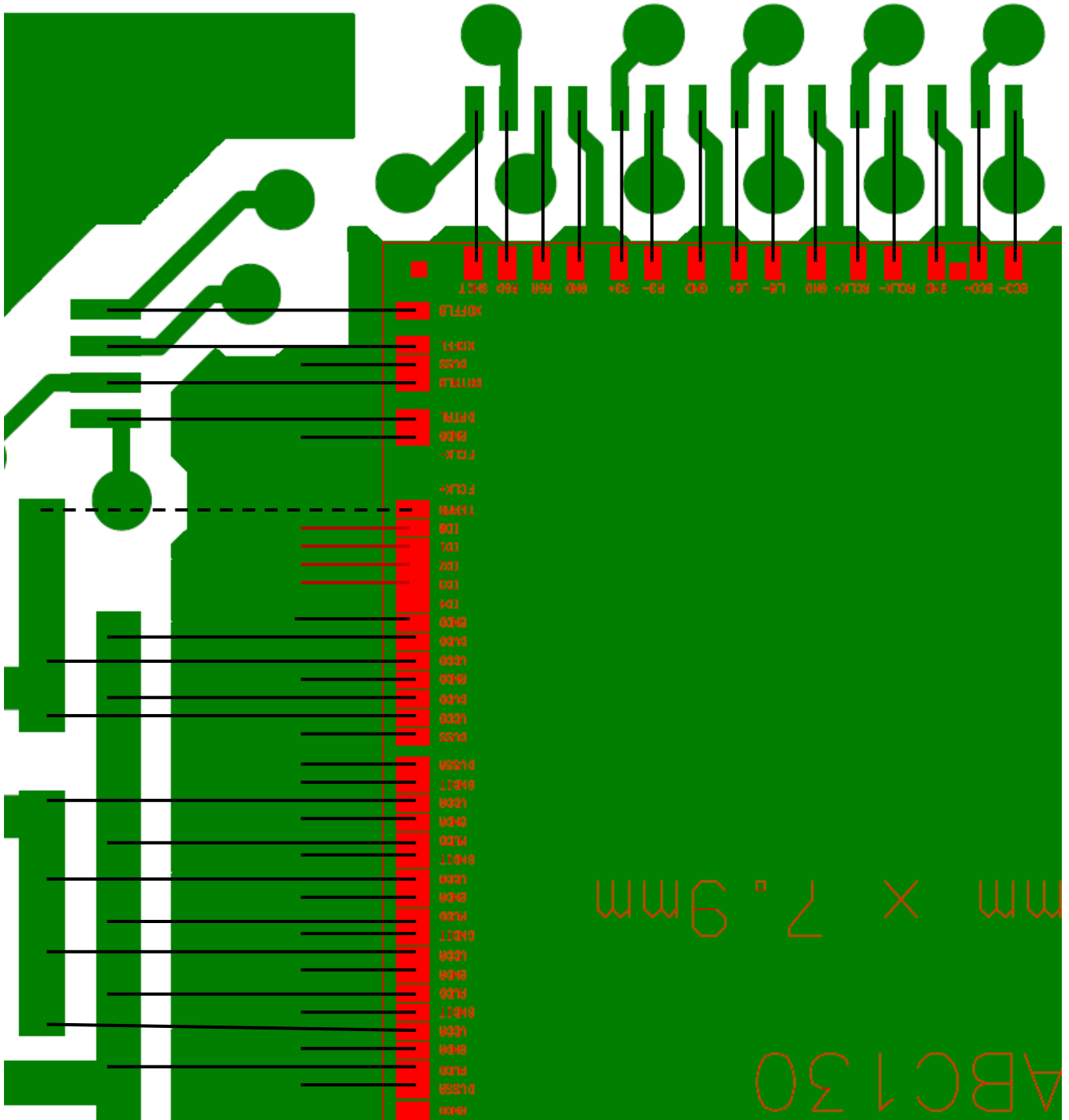
- 1: BCSP
- 2: BCSN
- 3: L0COMSP
- 4: L0COMSN
- 5: R3L1SP
- 6: R3L1SV
- 7: DATAoutP
- 8: DATAoutN
- 9: Gnd
- 10: ACGnd
- 11: Sensor Current Monitor point



Sensor Strip Bias Connection

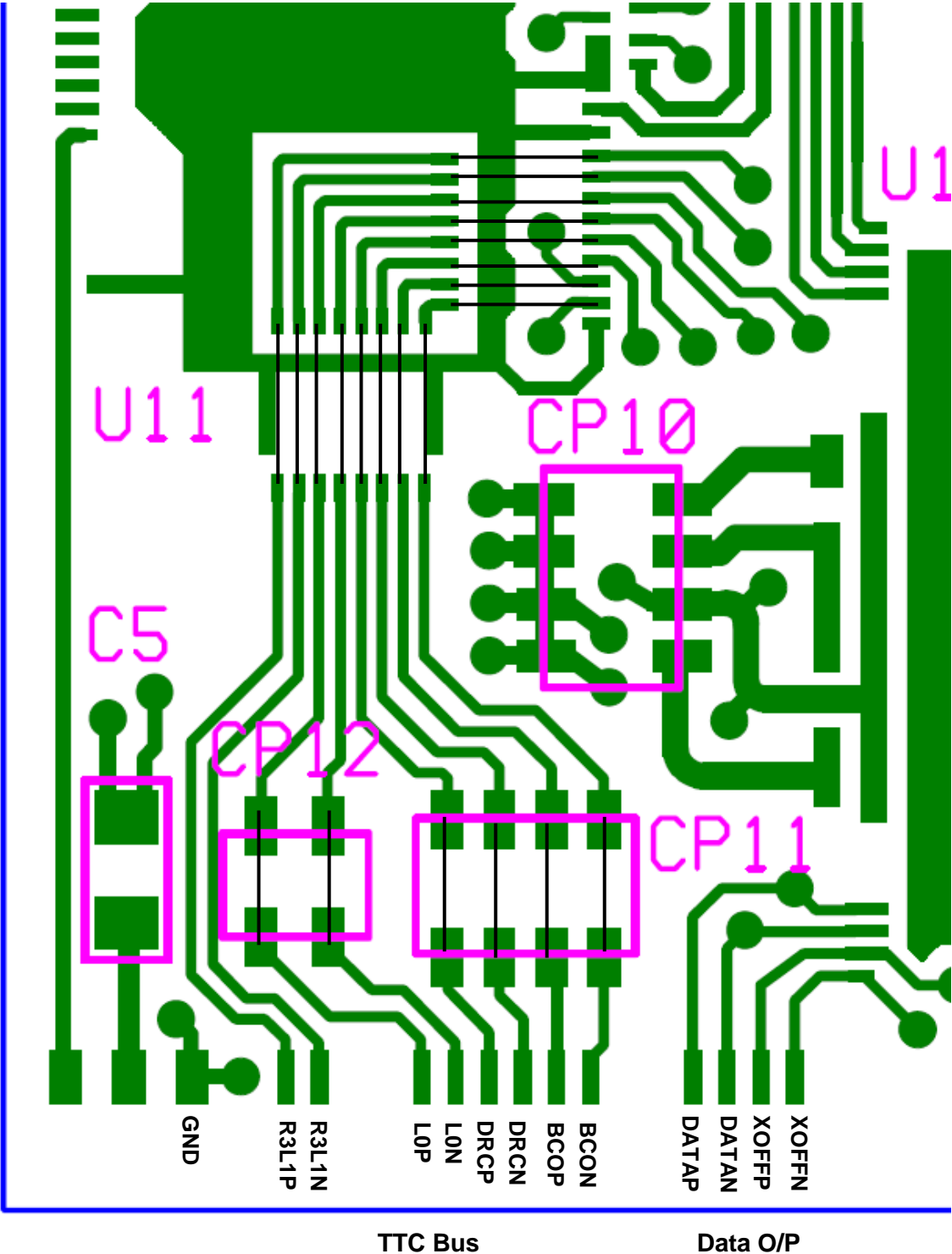
ABC130 bond detail – identical for ALL asics except for ChipID and TERMR

Detail A



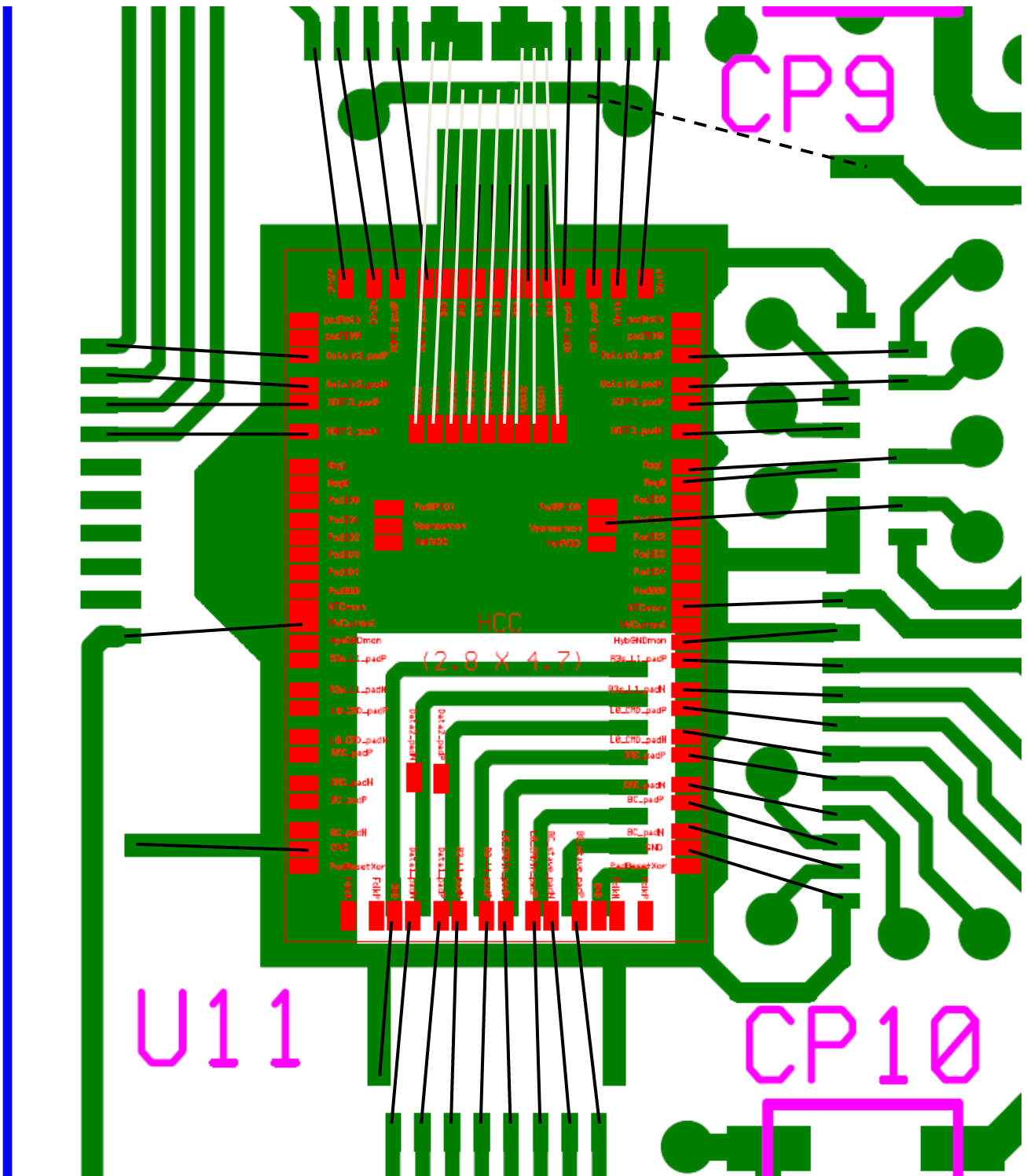
- The dashed line is a bond required at ABC130 locations U1, U2 and U3 only
- The red lines are for the ChipID (0-4) which is unique for each ABC130 (see following page)
 - The ID shown above is for location U1 (ChipID:16)

Bypassing of HCC for readout of a single column of 10 x ABC130s



Capacitor arrays CP11 and CP12 not to be placed (shorting links added)

HCC bond detail



There are three NTC Power options (option 2 being used), shown by dashed line above:

1. HalfVDD (connect to HCC)
2. Unregulated VDD, 1.5V
3. Regulated VDD, 1.2V