UNIVERSITY OF LIVERPOOL

Wirebonding Diagrams
ABC130 HCC V1.1

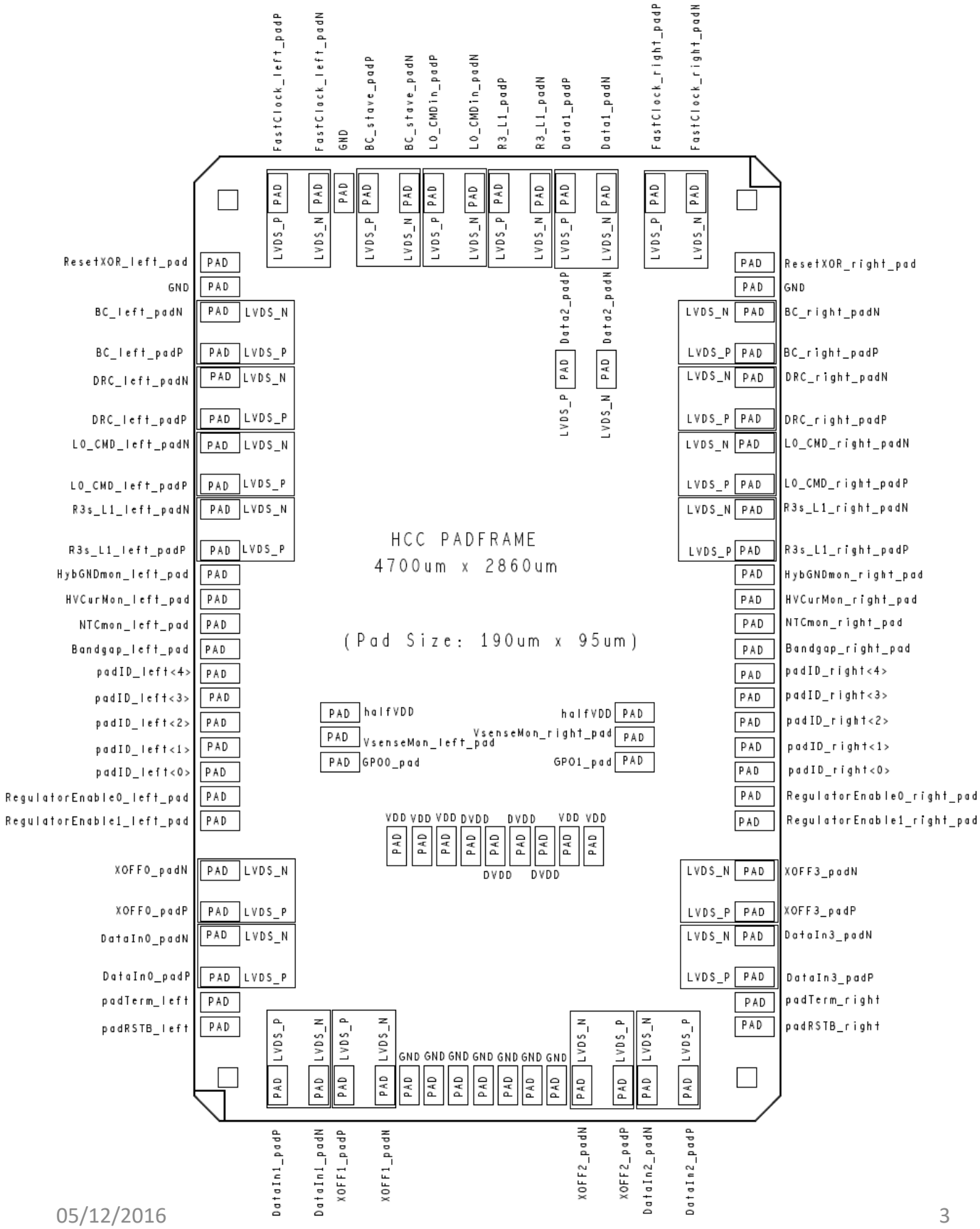
Hybrid 0 – 3: left hand
Hybrid 4 – 7: right hand

05/12/2016

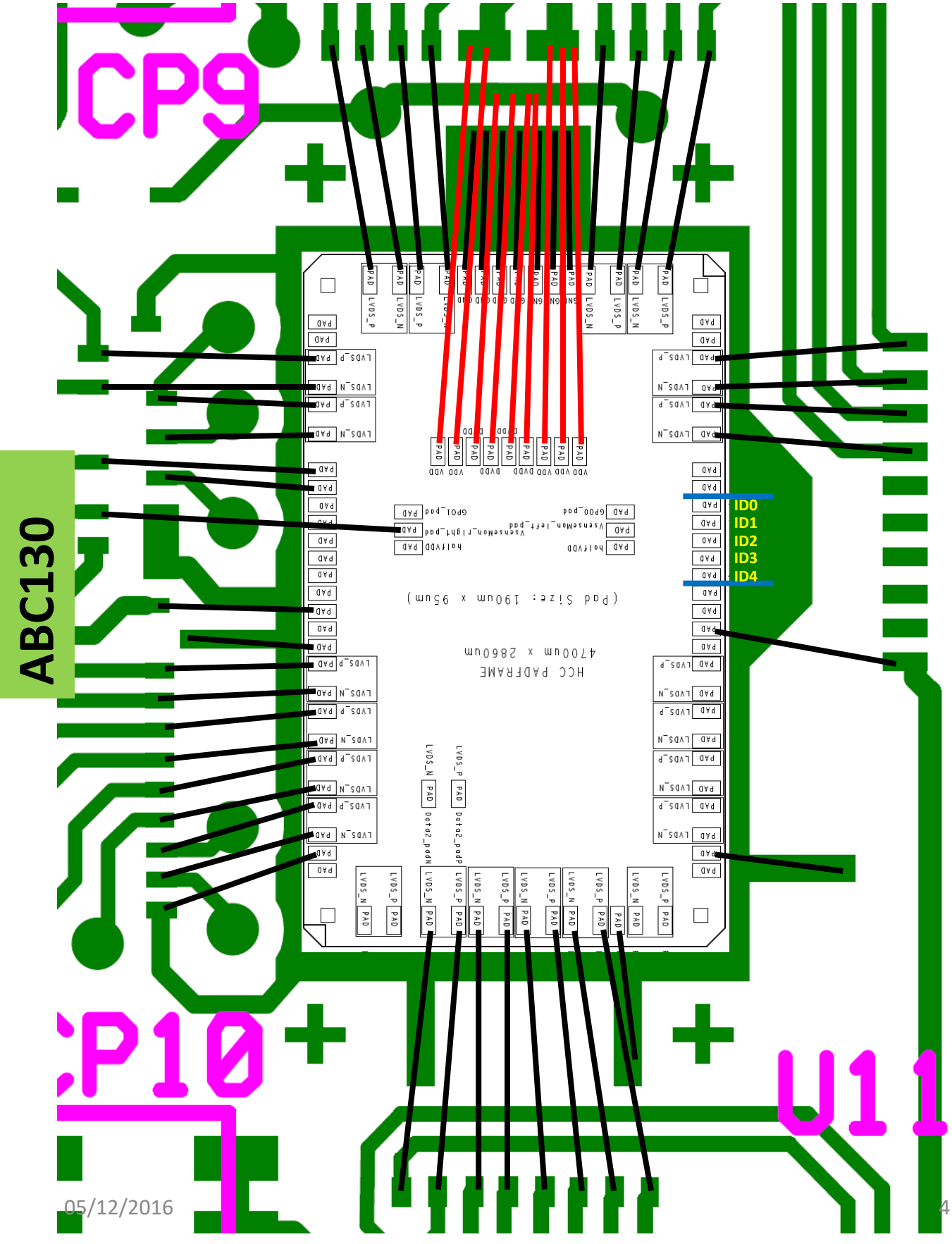
Ashley Greenall, Mike Wormald, Sven Wonsak

HCC

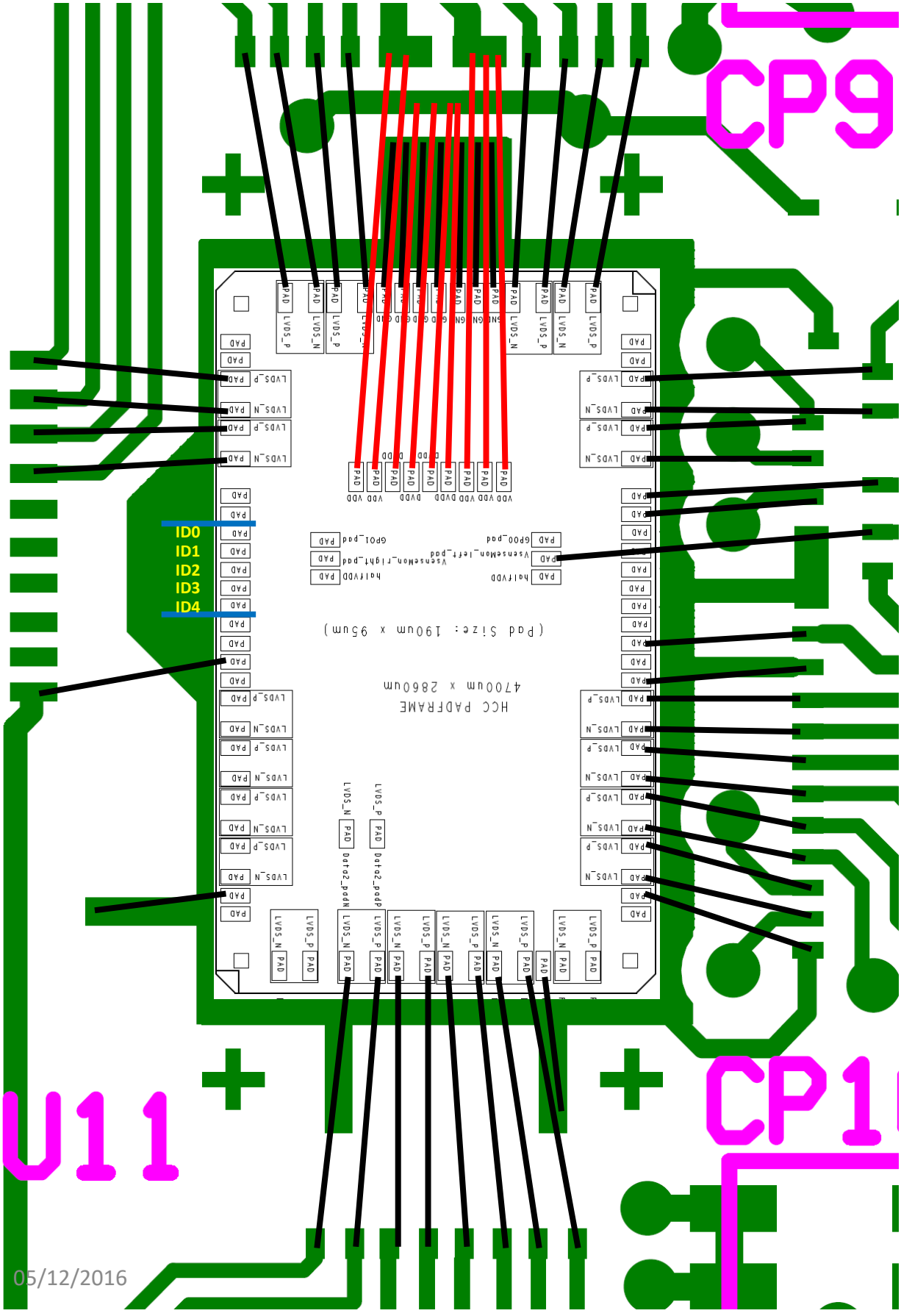
HCC pad diagram



Left Handed Hybrids



Right Handed Hybrids



HCC Addresses

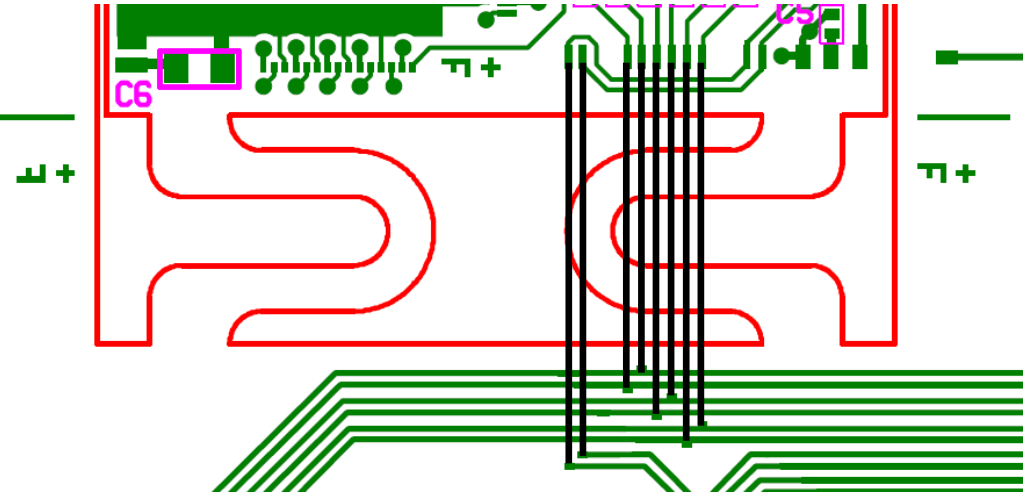
- X: wire bond present

	Hybrid 0	Hybrid 1	Hybrid 2	Hybrid 3	Hybrid 4	Hybrid 5	Hybrid 6	Hybrid 7
ID0		X		X		X		X
ID1	X	X			X	X		
ID2			X	X	X	X		
ID3	X	X	X	X	X	X		
ID4							X	X
HCC ID	21	20	19	18	17	16	15	14

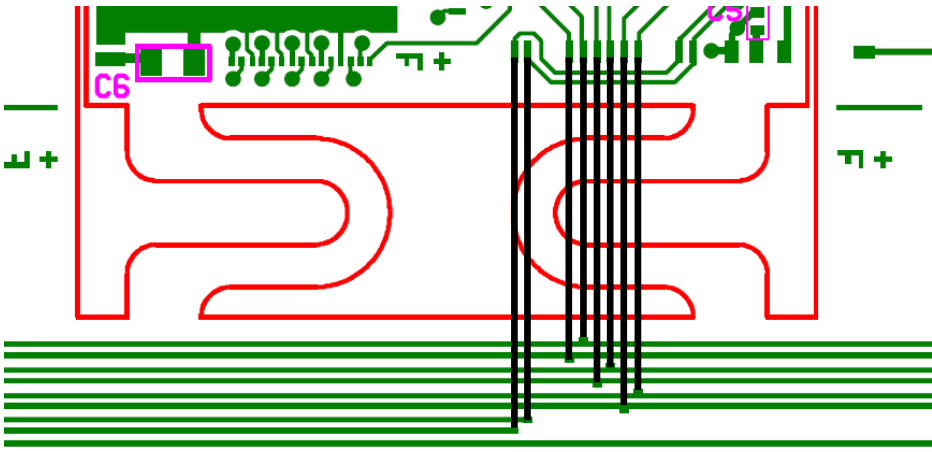
Power/Data to Panel

Signal Bonds

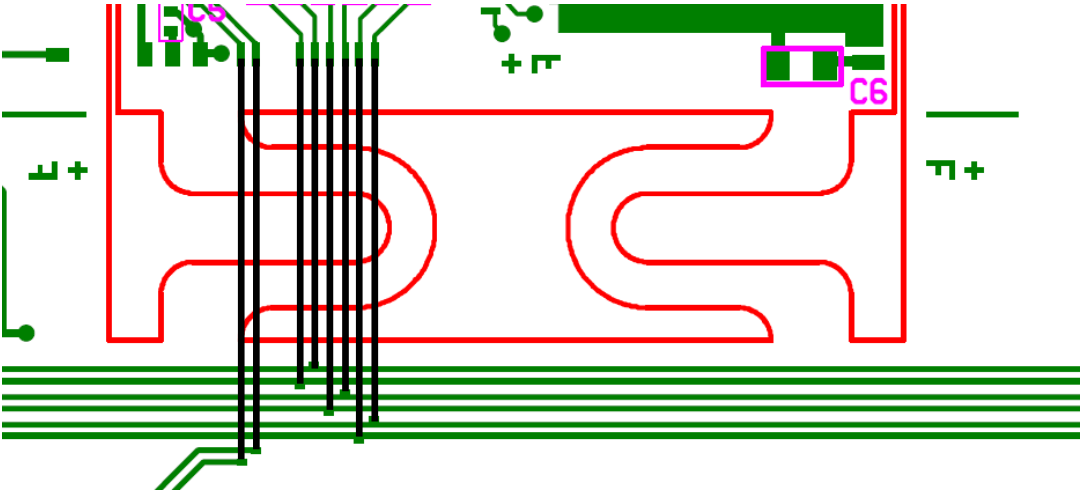
Hybrid 0



Hybrid 1 - 3

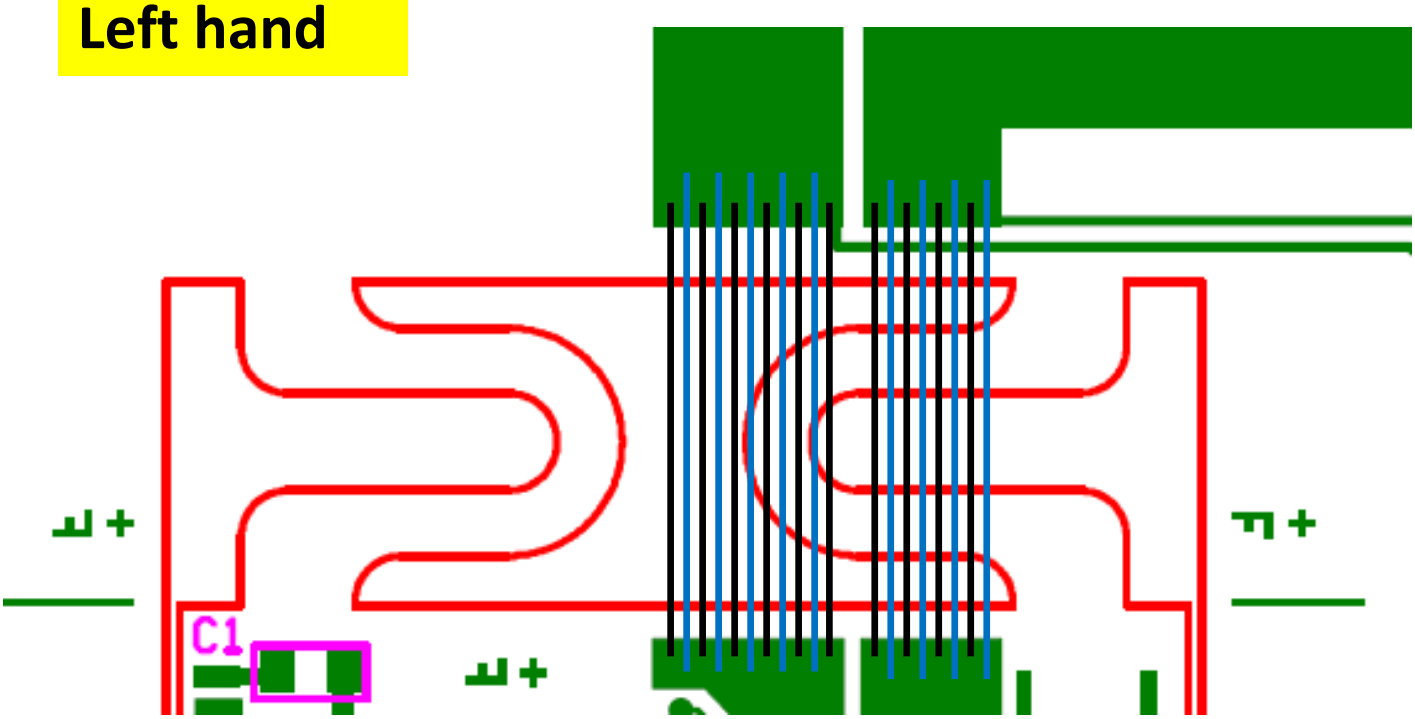


Hybrid 4 - 7



Power Bonds

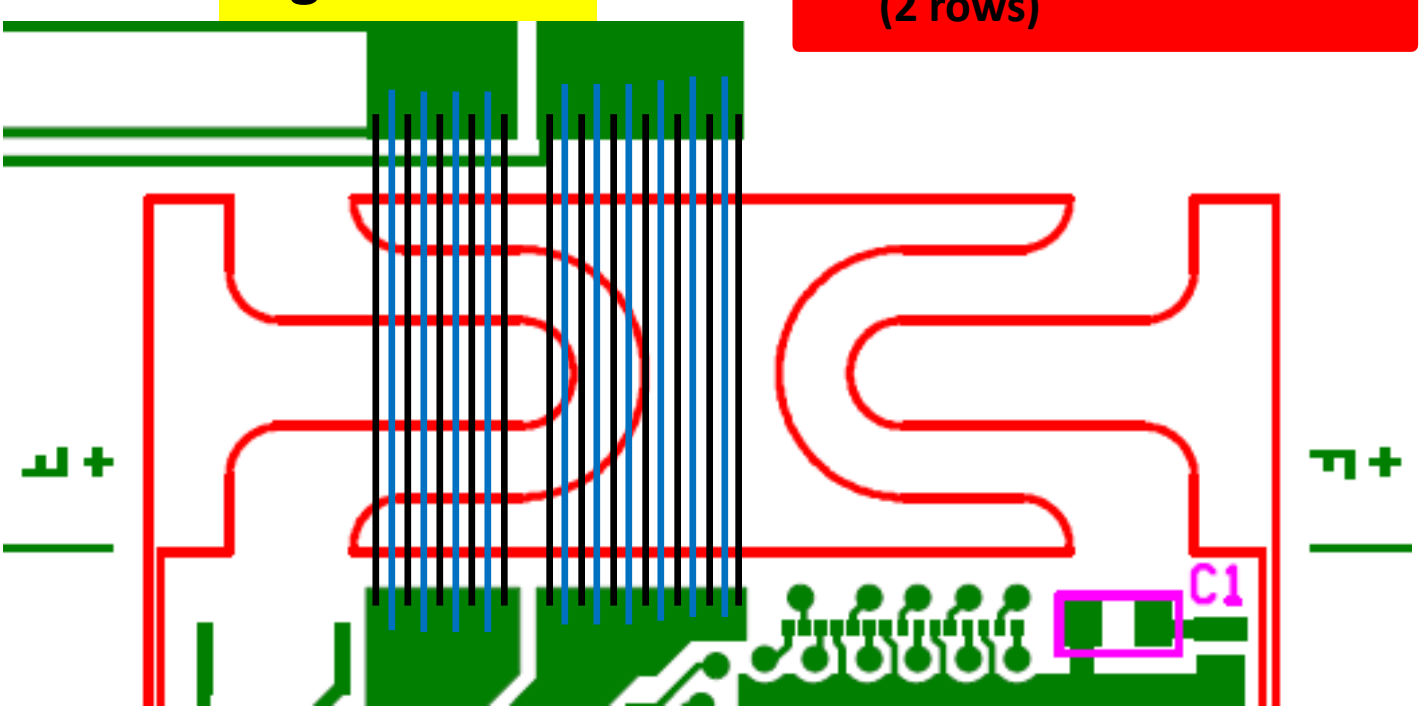
Left hand



Right hand

As many bonds as possible

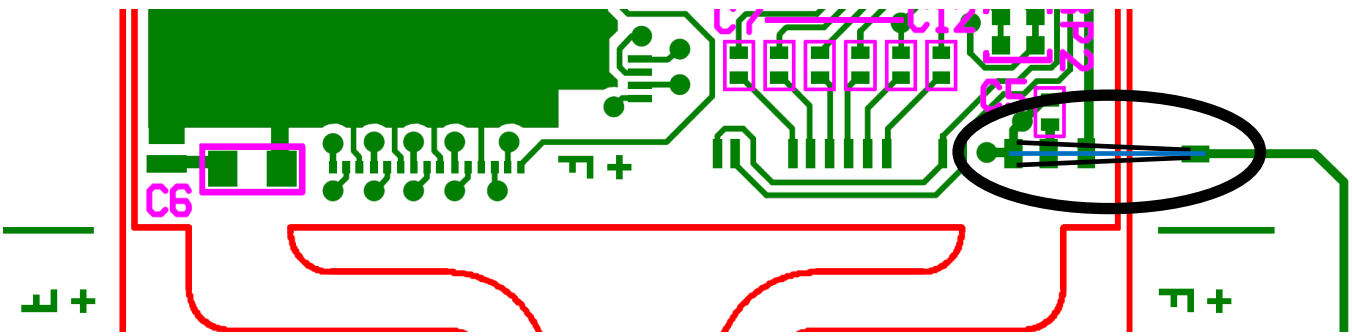
- **At least 25 for each pad (2 rows)**



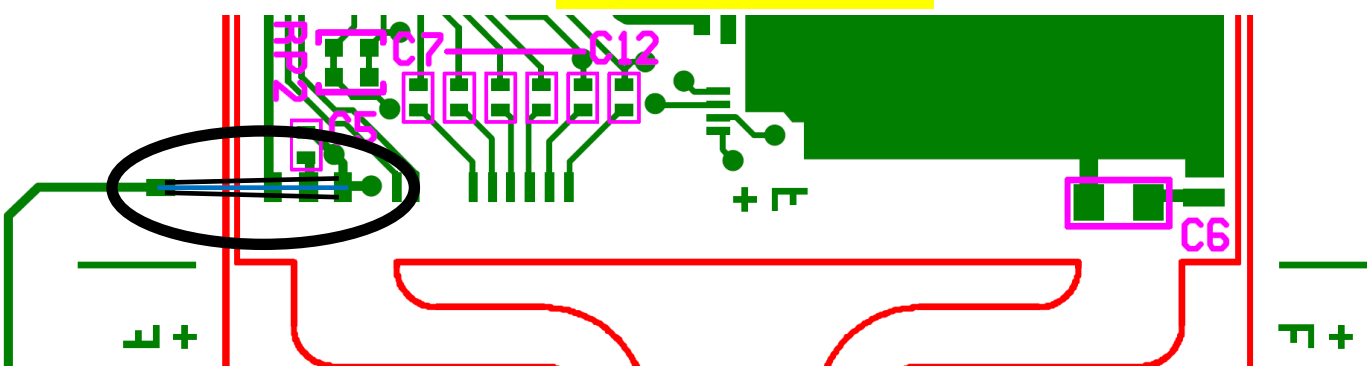
Additional Grounding

3 optional wire-bonds at each hybrid for better grounding

Left hand

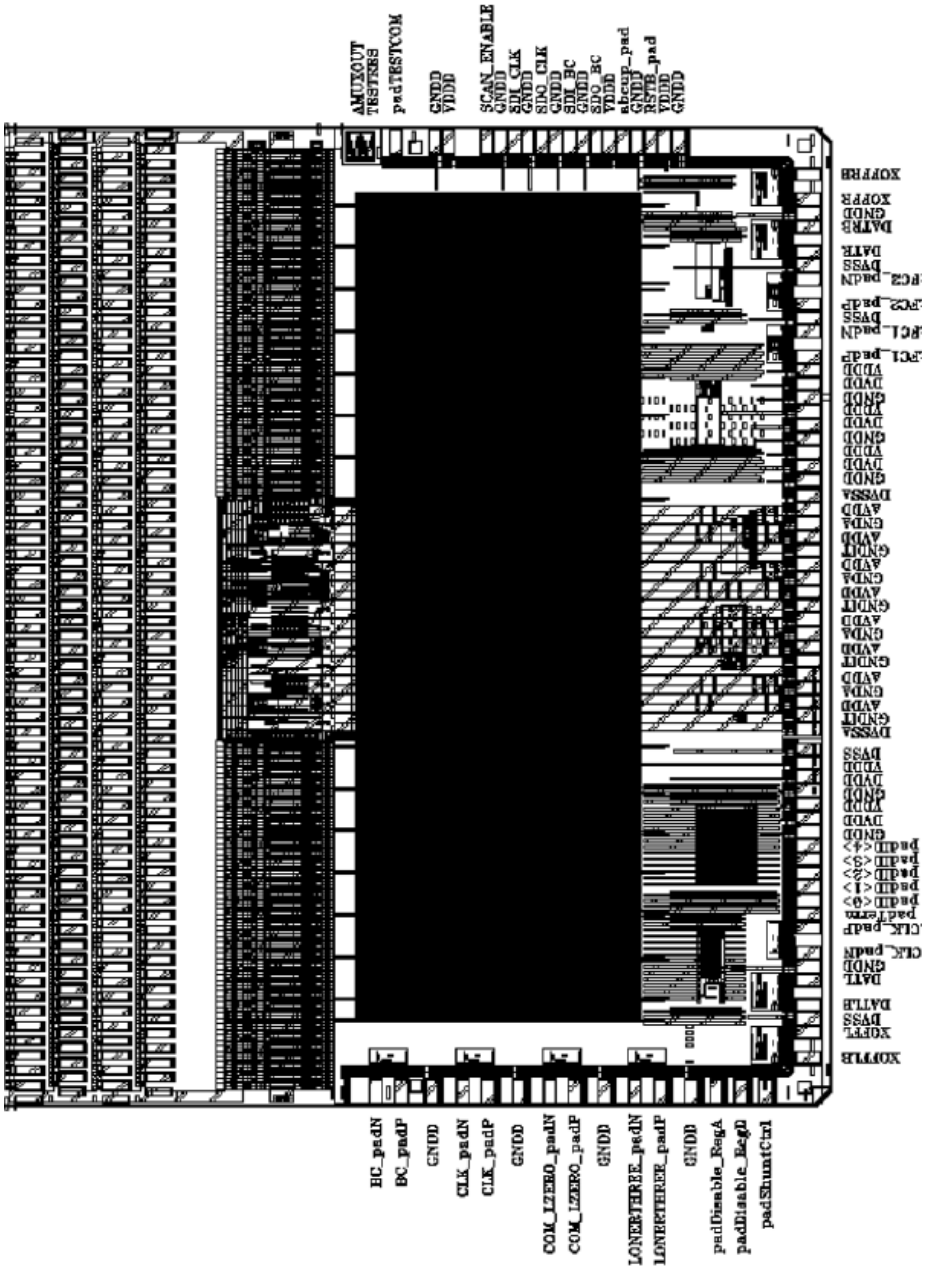


Right hand

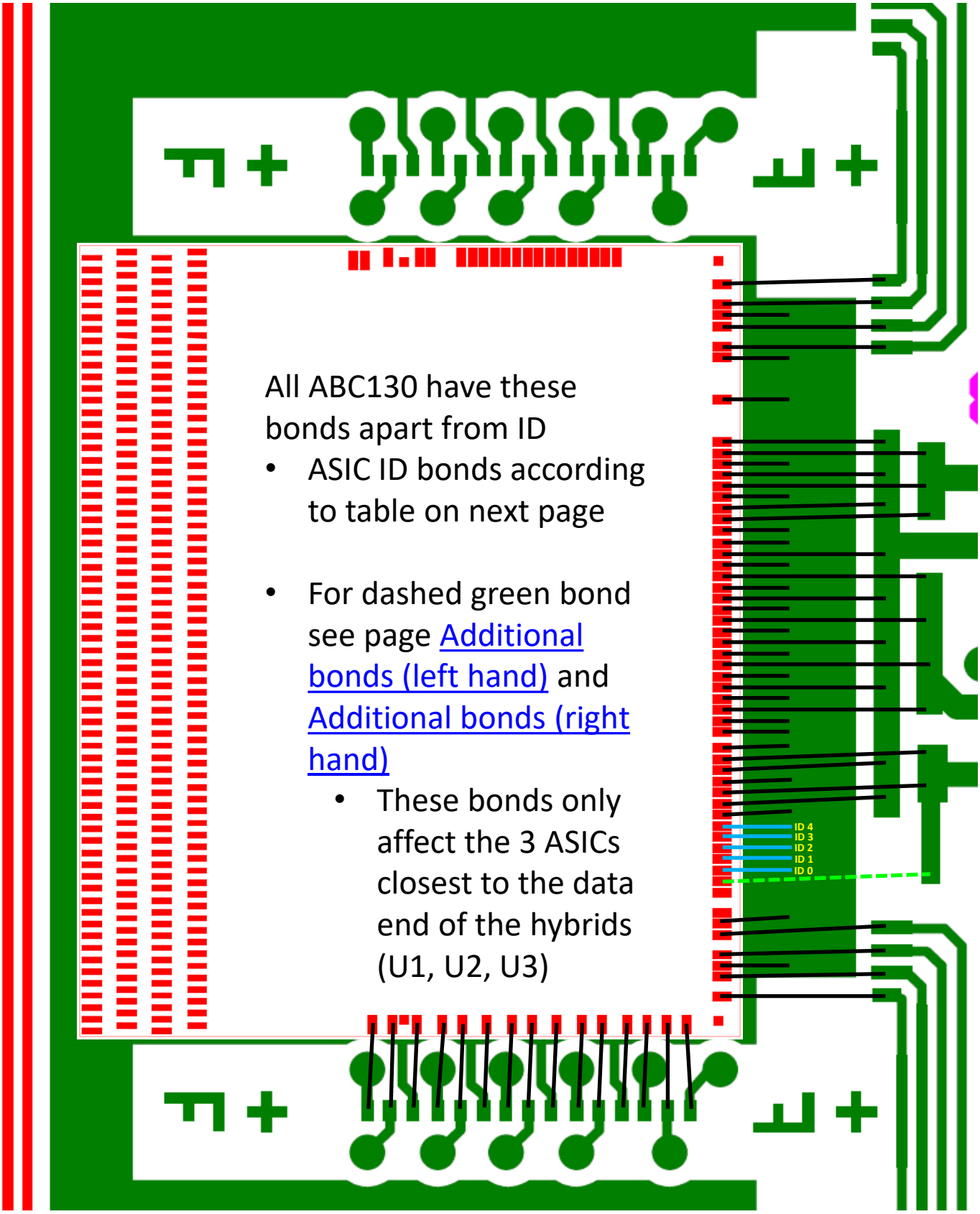


ABC130

ABC130 Pad Ring



General ABC130 bonds



All ABC130 have these bonds apart from ID

- ASIC ID bonds according to table on next page
- For dashed green bond see page [Additional bonds (left hand)] and [Additional bonds (right hand)]
  - These bonds only affect the 3 ASICs closest to the data end of the hybrids (U1, U2, U3)

ABC130 address bonds

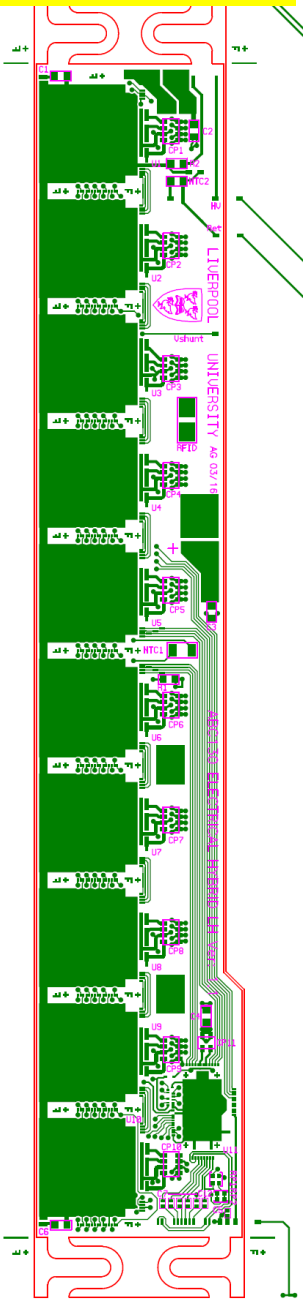
- X: wire bond present

ASIC ID	16	17	18	19	20	21	22	23	24	25
ID 4										
ID 3	X	X	X	X	X	X	X	X		
ID 2	X	X	X	X					X	X
ID 1	X	X			X	X			X	X
ID 0	X		X		X		X		X	

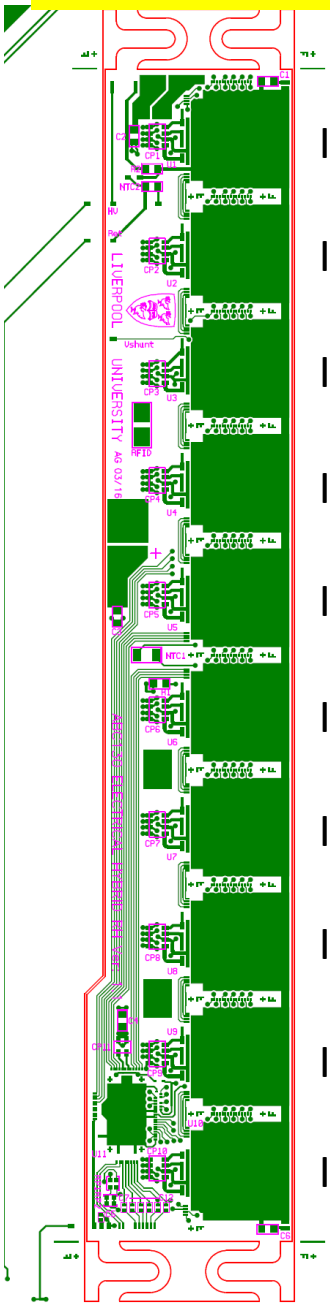
ABC130 ID for left/right handed hybrids

Left hand

ID: 25
ID: 24
ID: 23
ID: 22
ID: 21
ID: 20
ID: 19
ID: 18
ID: 17
ID: 16

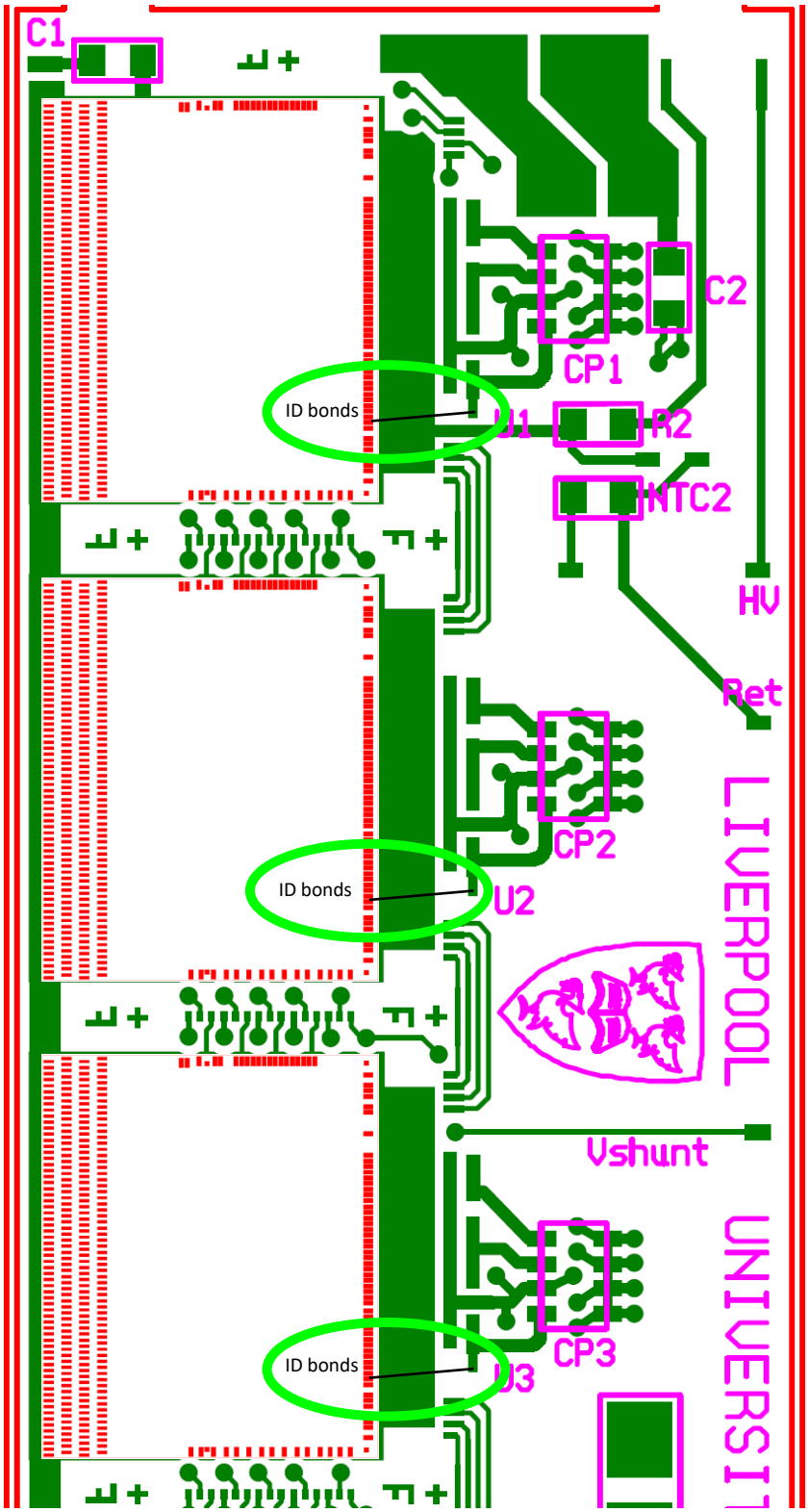


Right hand

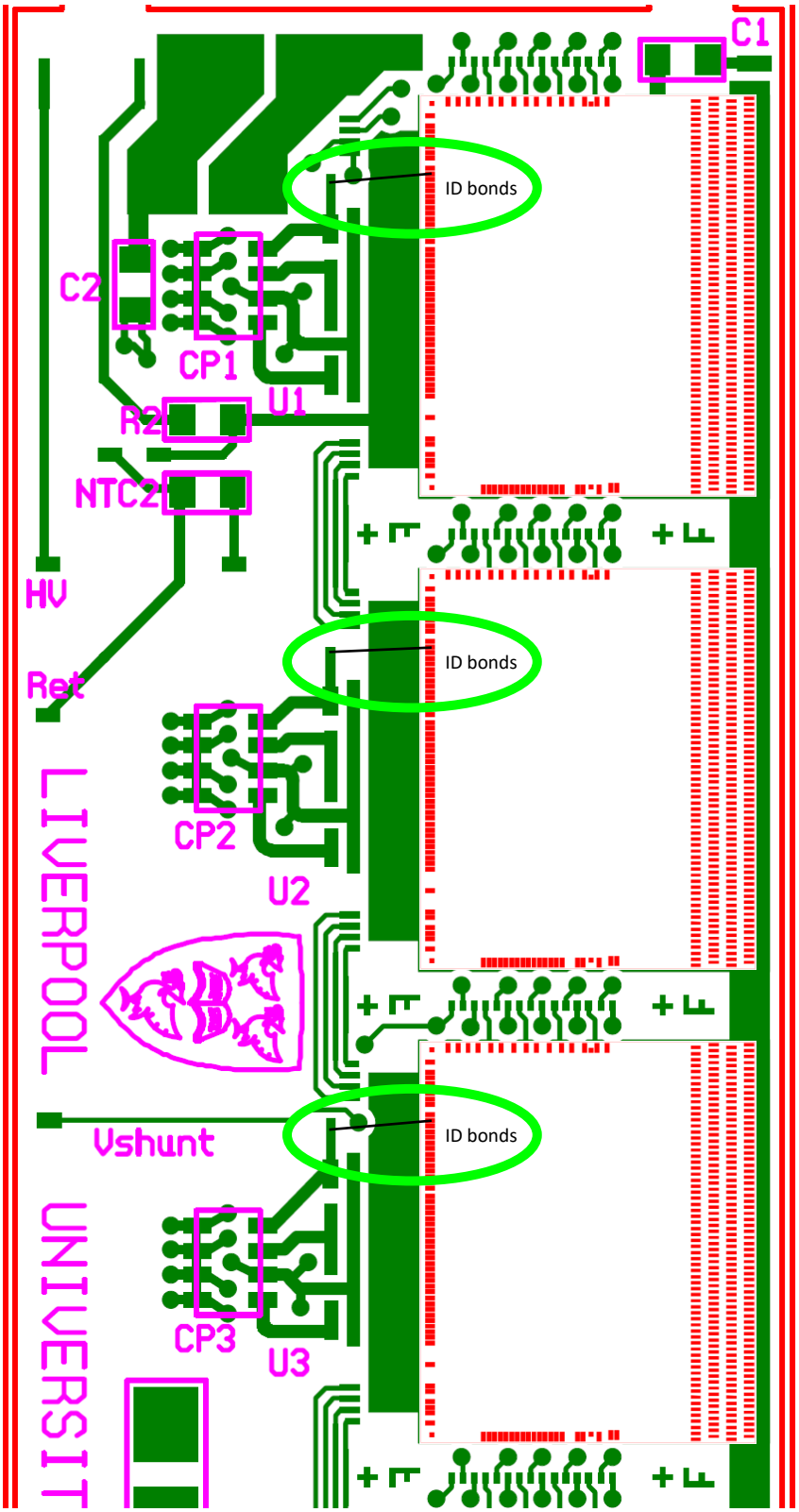


ID: 16
ID: 17
ID: 18
ID: 19
ID: 20
ID: 21
ID: 22
ID: 23
ID: 24
ID: 25

Additional bonds (left hand)

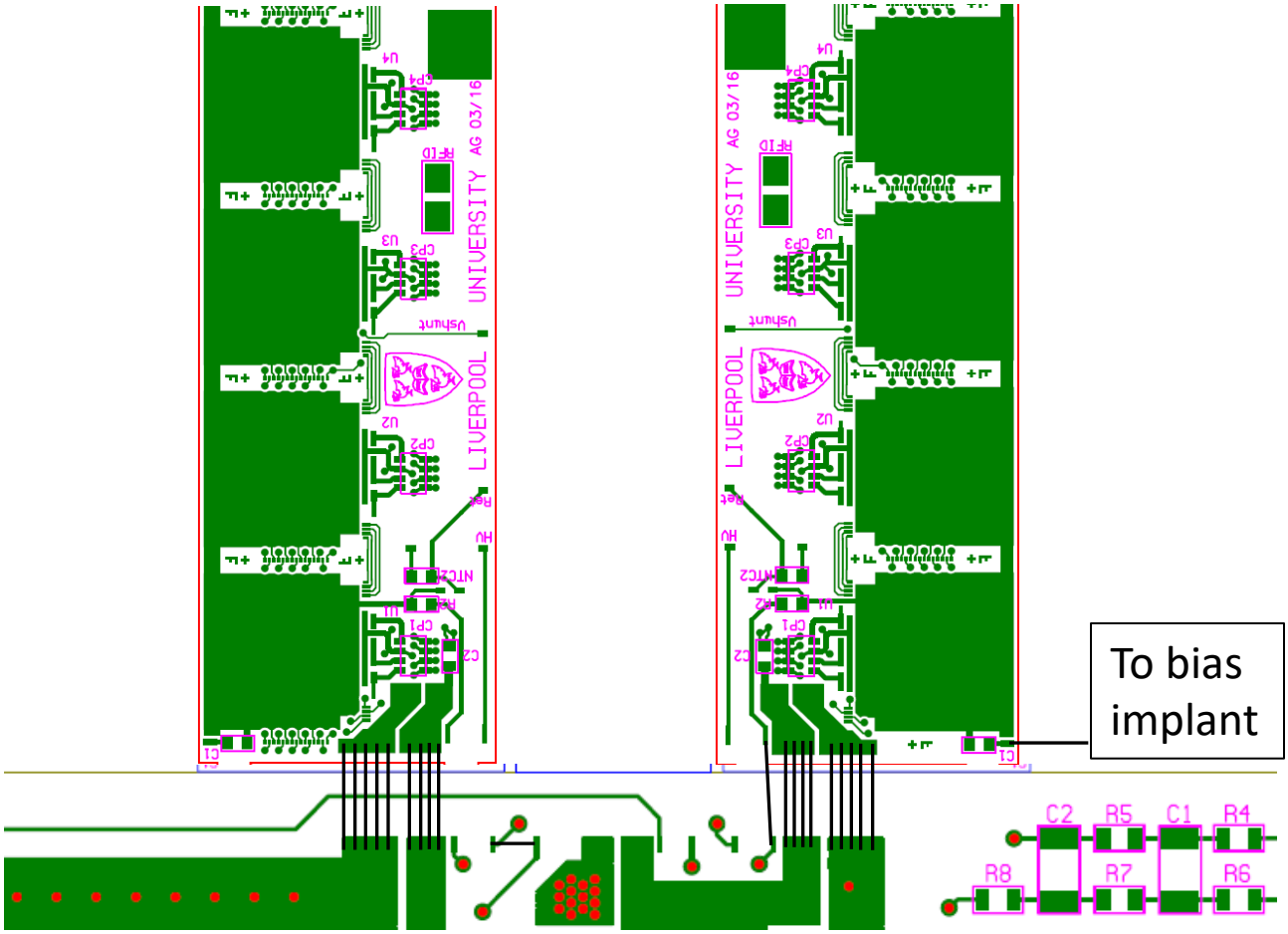


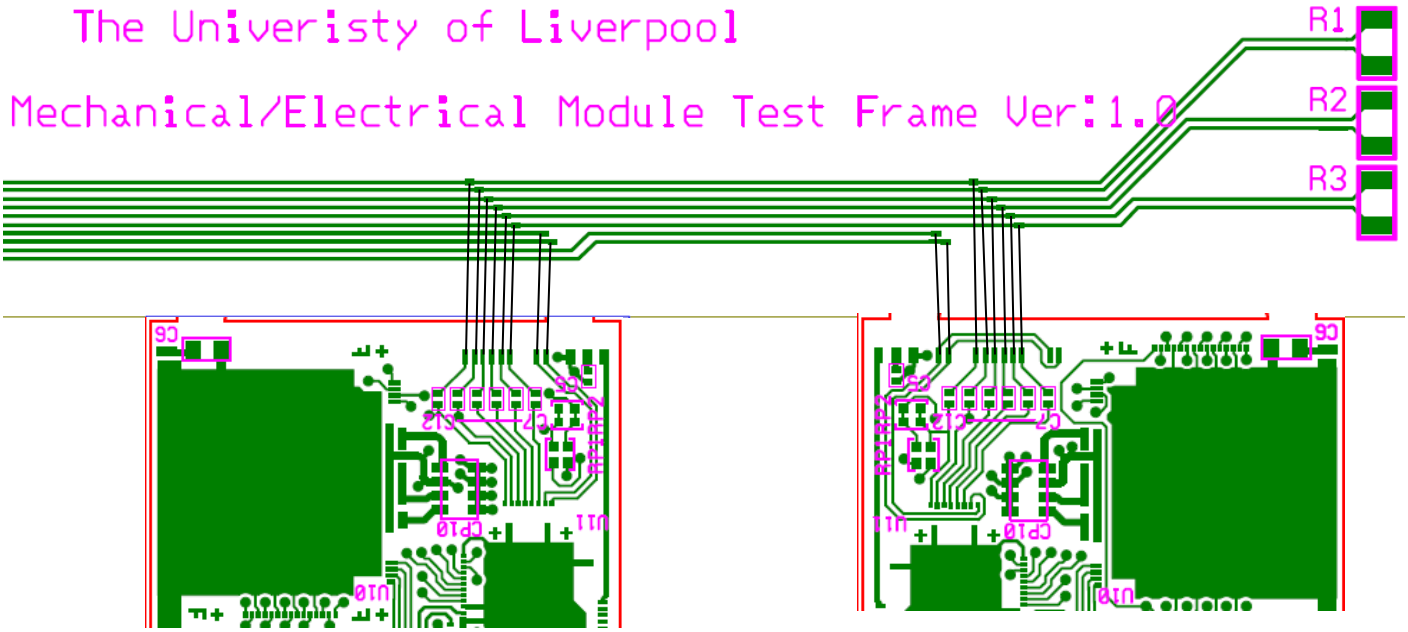
Additional bonds (right hand)



Wire-bonds for Module

Power side (without power board)



For each hybrid ~20 wires at each low power bond pad

Data Side (without power board)