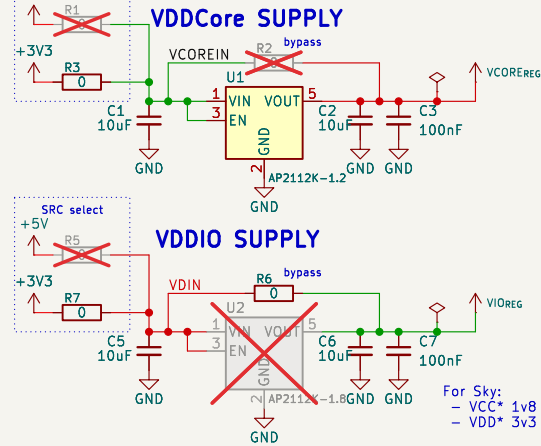


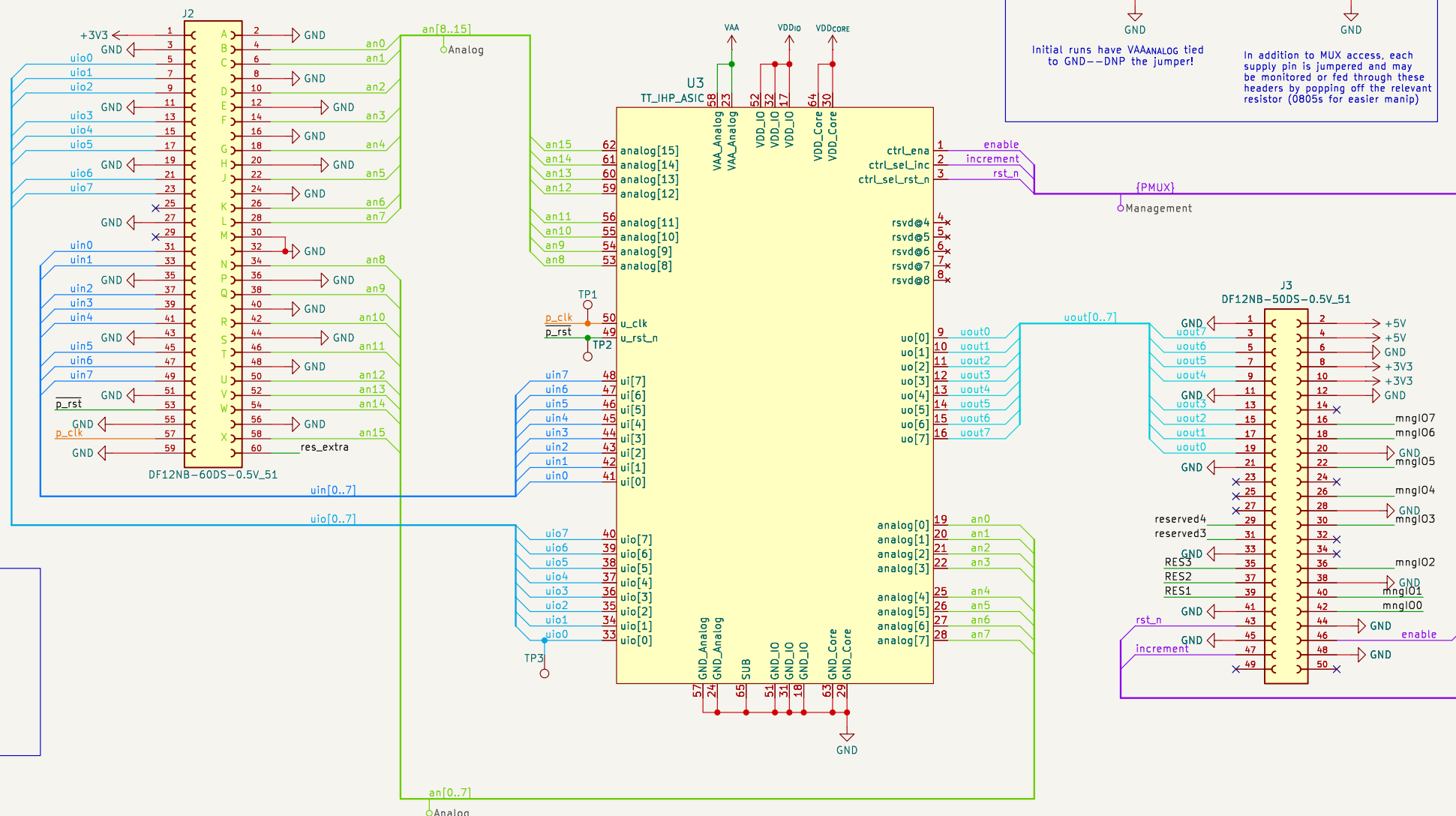
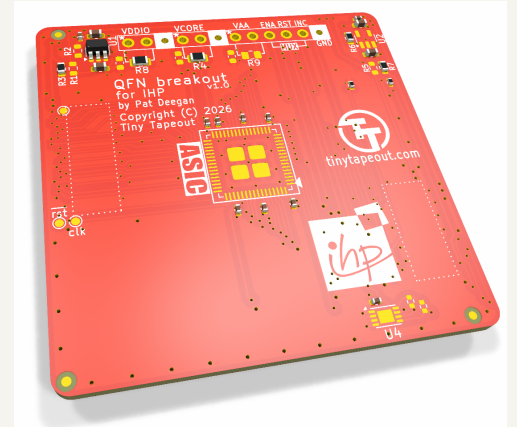
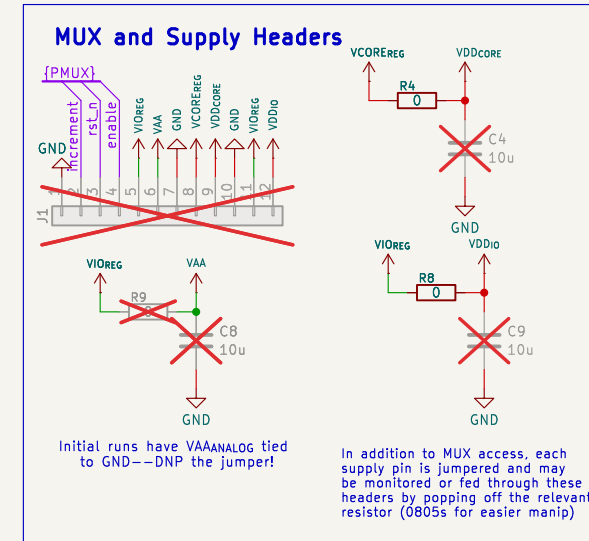
QFN and Analog Breakout For TinyTapeout IHP ASICs

Core Voltage Selection
Breakout is fed 3v3 (guaranteed) and 5V (assumes USB supply) and regulates core voltages as needed. Each LDO has jumpers to select source or bypass completely.



This version of the breakout allows access to the ASIC I/O, management and analog interfaces. It is the first IHP chip breakout, and

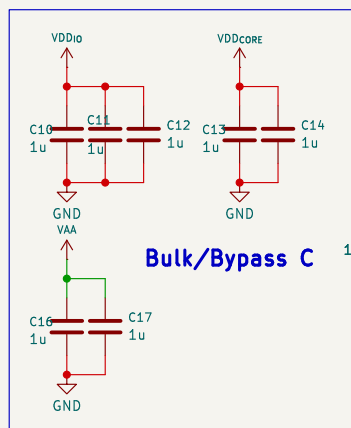
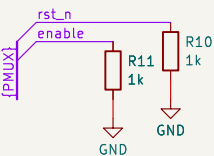
- * it receives the DB 3v3 IO level as well as the VUSB and it takes on the responsibility of regulating its IO/Vcore voltages
- * provides interfaces to supply or monitor each VDD* and VAA independently
- * provides means to send off analog signals to demoboard, and its weak pull-downs, or severe that connection
- * is naturally keyed, owing to new bottom-side connectors
- * DF12 connectors have high speed capability (up to USB4/20Gbps), high density and, optionally, a shielded version for improved noise immunity.
- * has additional I/O from bottom-side for management, eeprom ID or expansion.



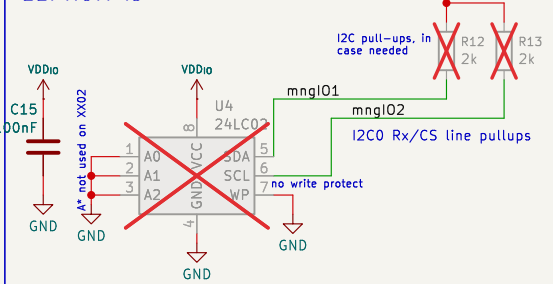
Presence Detection

pull-downs used in conjunction with weak PU on demoboard for poor man's ASIC detector circuit.

Other possibility is to use a dedicated i2c eeprom and probe for that.



EEPROM ID



FID1
Fiducial
FID2
Fiducial
FID3
Fiducial

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Psychogenic Technologies INC

Sheet: /

File: breakout-ihp-qfn.kicad_sch

Title: QFN and Analog Breakout For TinyTapeout IHP ASICs

Size: A3

Date: 2026-02-10

Rev: 1.1

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Id: 1/1