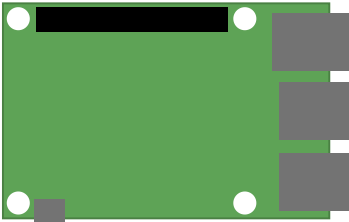


# Layout

1x  
Raspberry Pi 4B



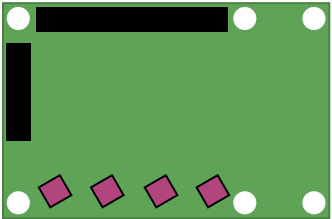
ETH To user / To Cluster controller

2x USB 3.0

2x USB 2.0

To probes

1x  
Probe Shield

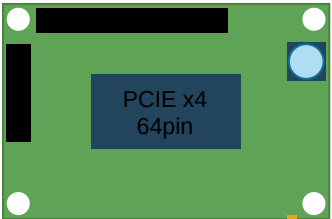


ARM 10 pin connector

40 Pin 2.56mm GPIO Connector

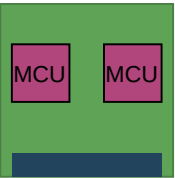
20 Pin 2.56mm Probe Bus Connector

up to 8x  
Target Stack  
Shield



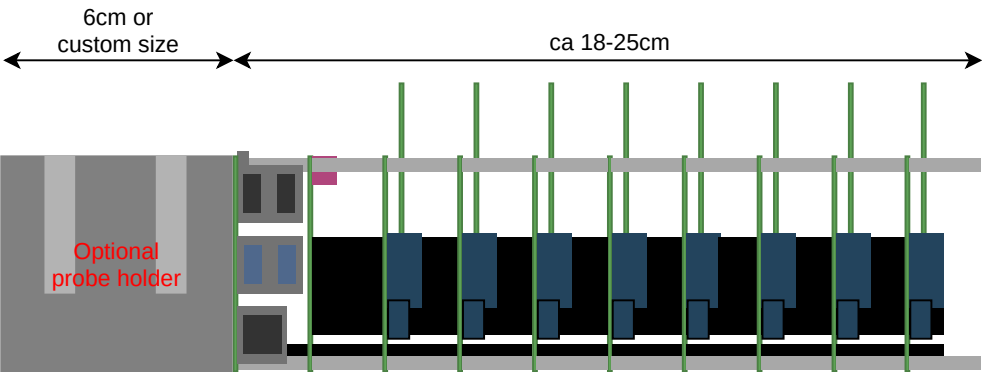
PCIE x4  
64pin

Target  
Daughterboard

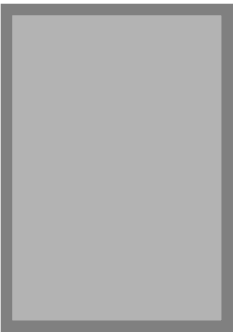


PCIE x4  
64pin

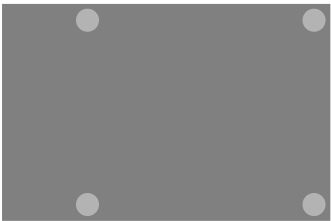
Max 4 MCU per  
board



6cm or  
custom size



Optional:  
1x  
3D Printed probe  
holder

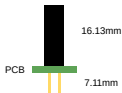


(US projection)

# Connectors

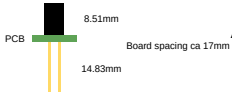
## Possible GPIO shield / Probe shield pass through connectors:

ESQ-120-34-L/T-D (40Pin)  
ESQ-110-34-L/T-D (20Pin)



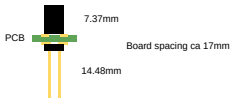
Price: ~8-10CHF  
Availability: Non plated, ok

SSQ-120-04-L/T-D (40Pin)  
SSQ-110-04-L/T-D (20Pin)



Price: ~3-6CHF  
Availability: non plated ok

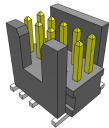
TSM-120-03-F/L-DV (40Pin)  
TSM-110-03-F/L-DV (20Pin)  
with  
SSM-120-F/L-DV (40Pin)  
SSM-110-F/L-DV (20Pin)



Price: ~9CHF per pair  
Availability: ok

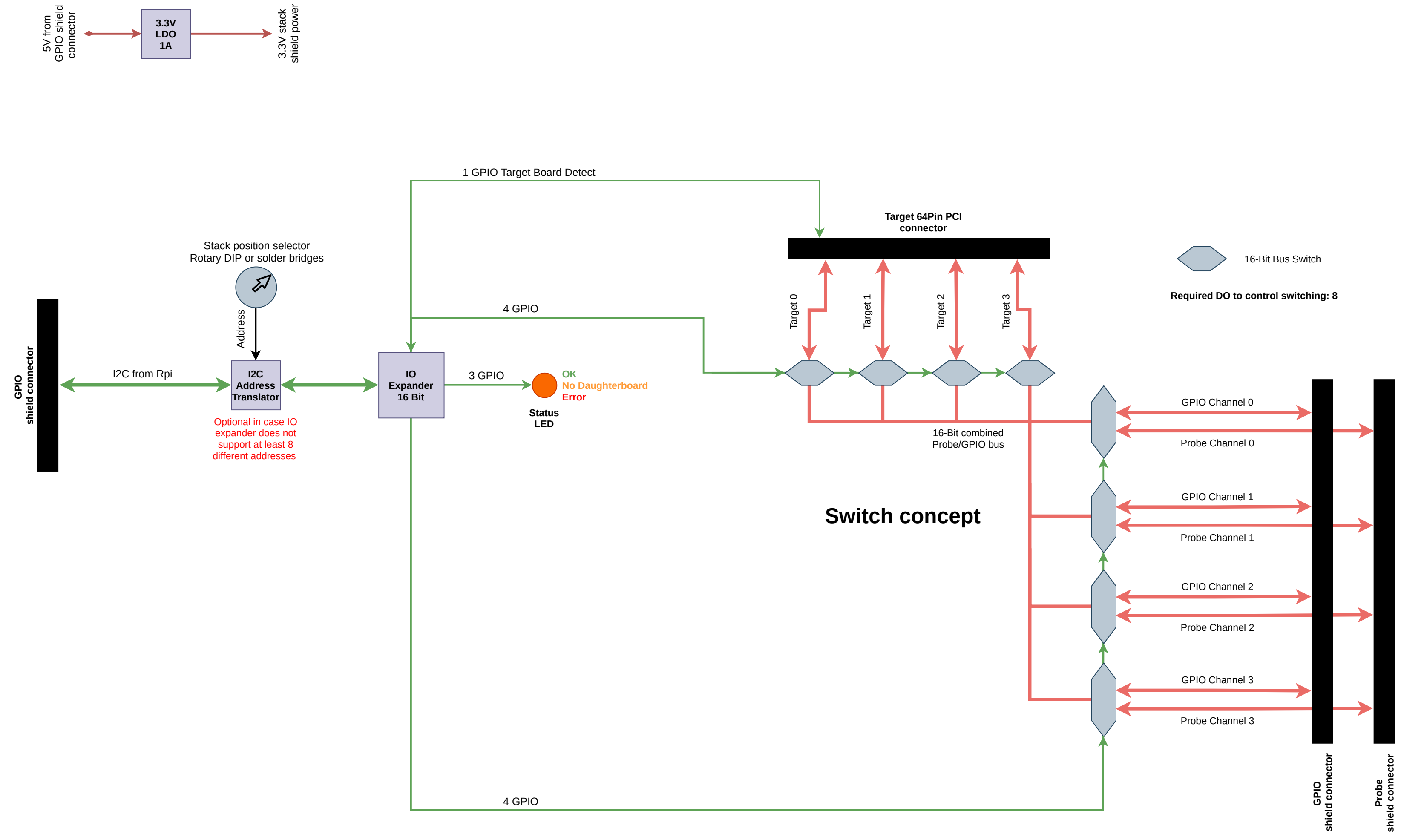
## Possible ARM 10pin debug connectors:

FTSH-105-01-F-DV-007-K



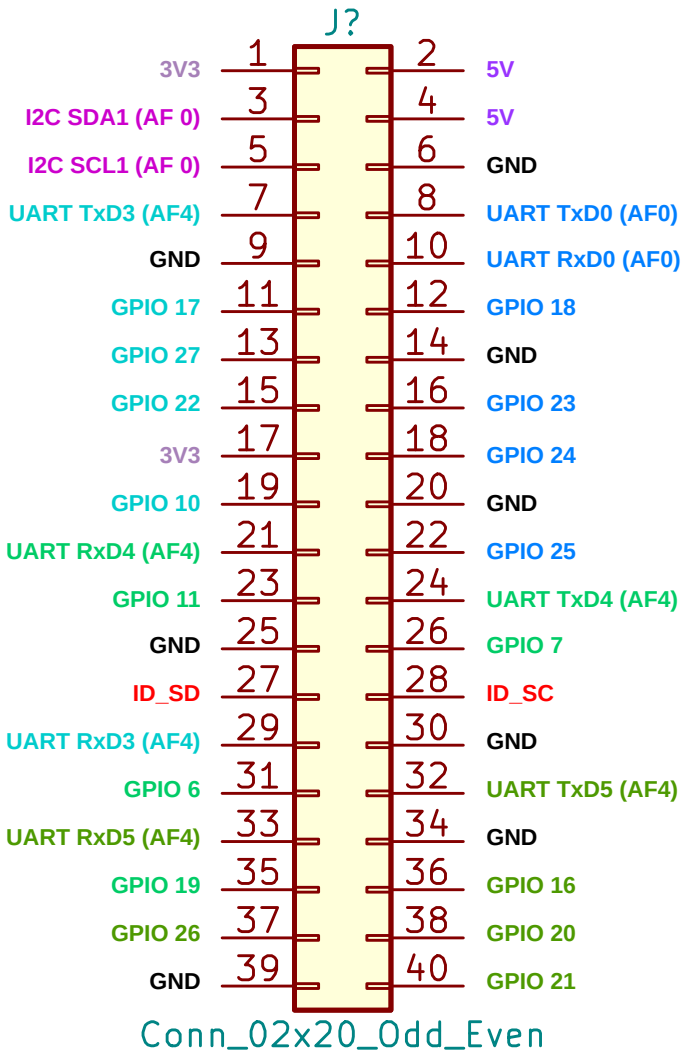
Price: ~3-4CHF  
Availability: ok

Target Stack  
Shield



Raspberry 40pin  
connector  
config bcm2711  
(rpi designations)

Per GPIO channel: 4x GPIO, 1x UART



I2C Bus: Controls all IO expanders on Target Stack Shields

3V3: Unused

5V: Power source for shields

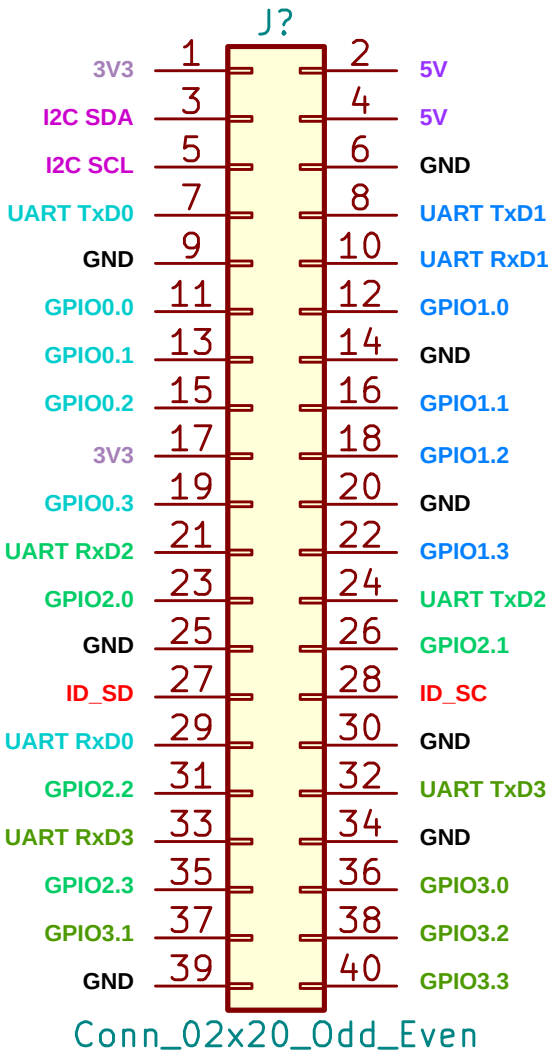
ID\_XX: Unused

GPIO Channels:

- Channel 0
- Channel 1
- Channel 2
- Channel 3

GPIO shield  
connector  
(hive designations)

Per GPIO channel: 4x GPIO, 1x UART



I2C Bus: Controls all IO expanders on Target Stack Shields

3V3: Unused

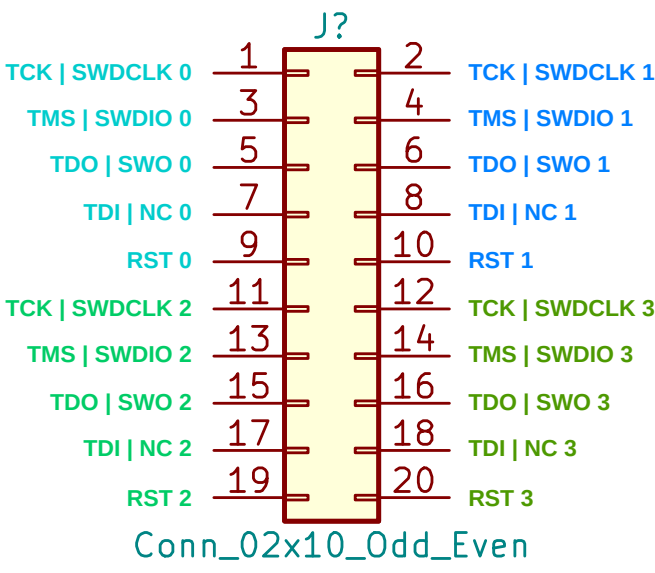
5V: Power source for shields

ID\_XX: Unused

GPIO Channels:

- Channel 0
- Channel 1
- Channel 2
- Channel 3

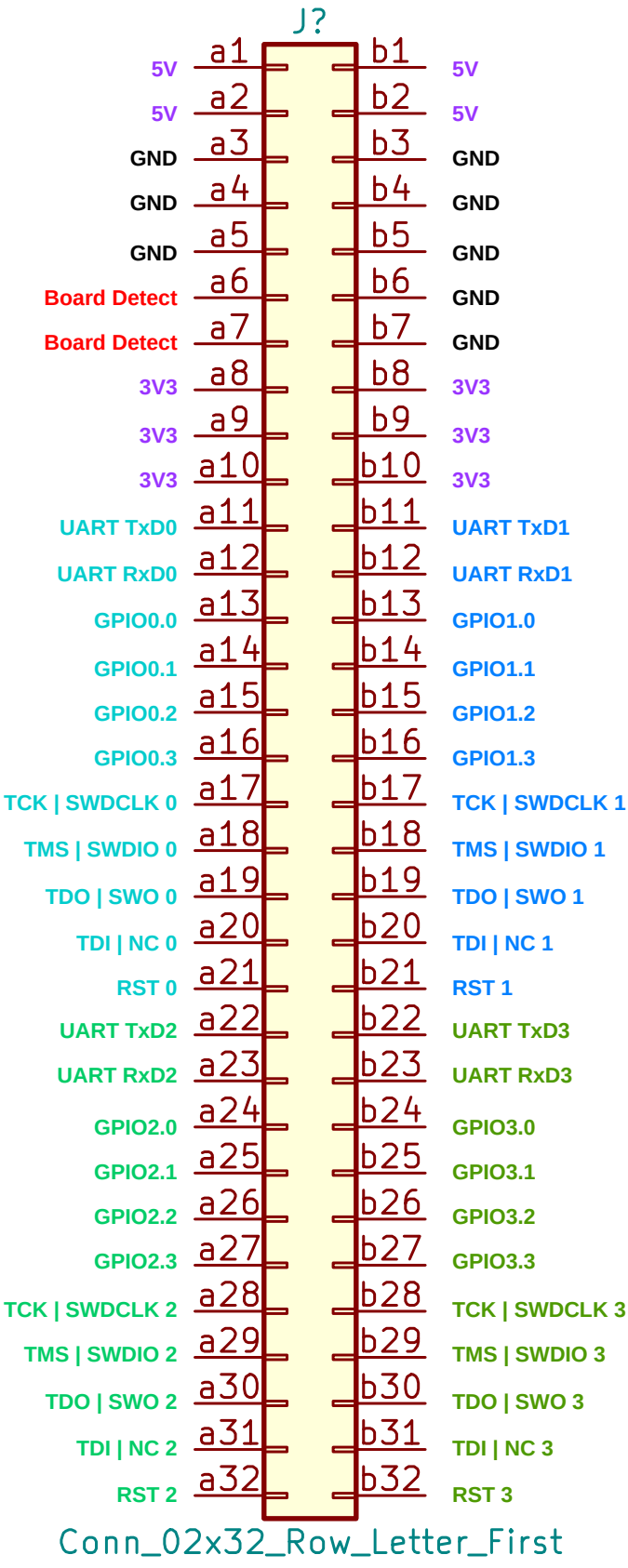
Probe shield  
connector  
(hive designations)



Probe Channels:

- Channel 0
- Channel 1
- Channel 2
- Channel 3

Target 64Pin PCI  
connector  
(hive designations)



3V3: 3.3V supplied from shield LDO. Not from rpi 3.3V!

5V: 5V supplied by power supply usb c rpi input

Board Detect: Needs to be connected together on daughterboard, allows shield to detect if daughterboard is present

Channels:

- Channel 0
- Channel 1
- Channel 2
- Channel 3