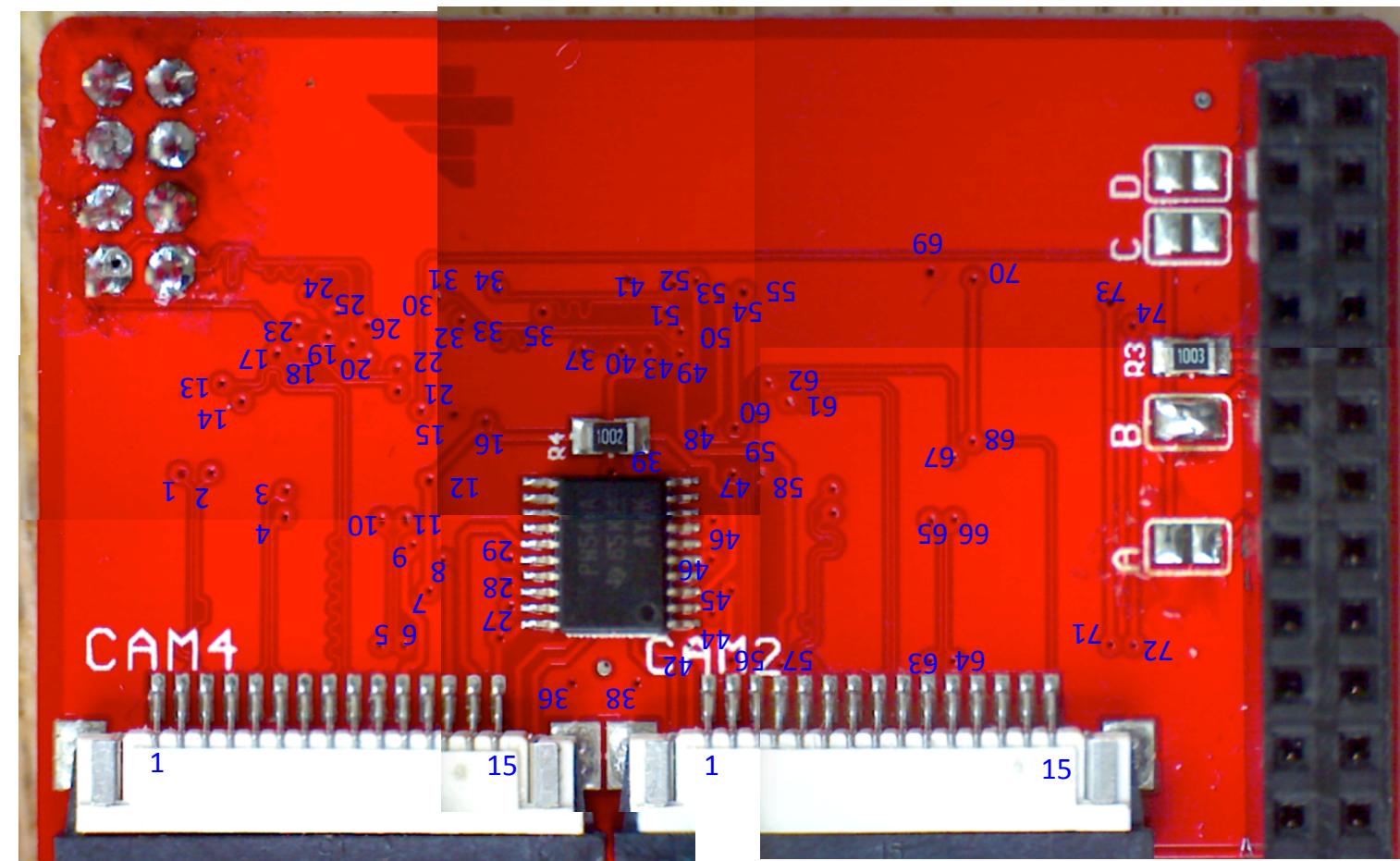
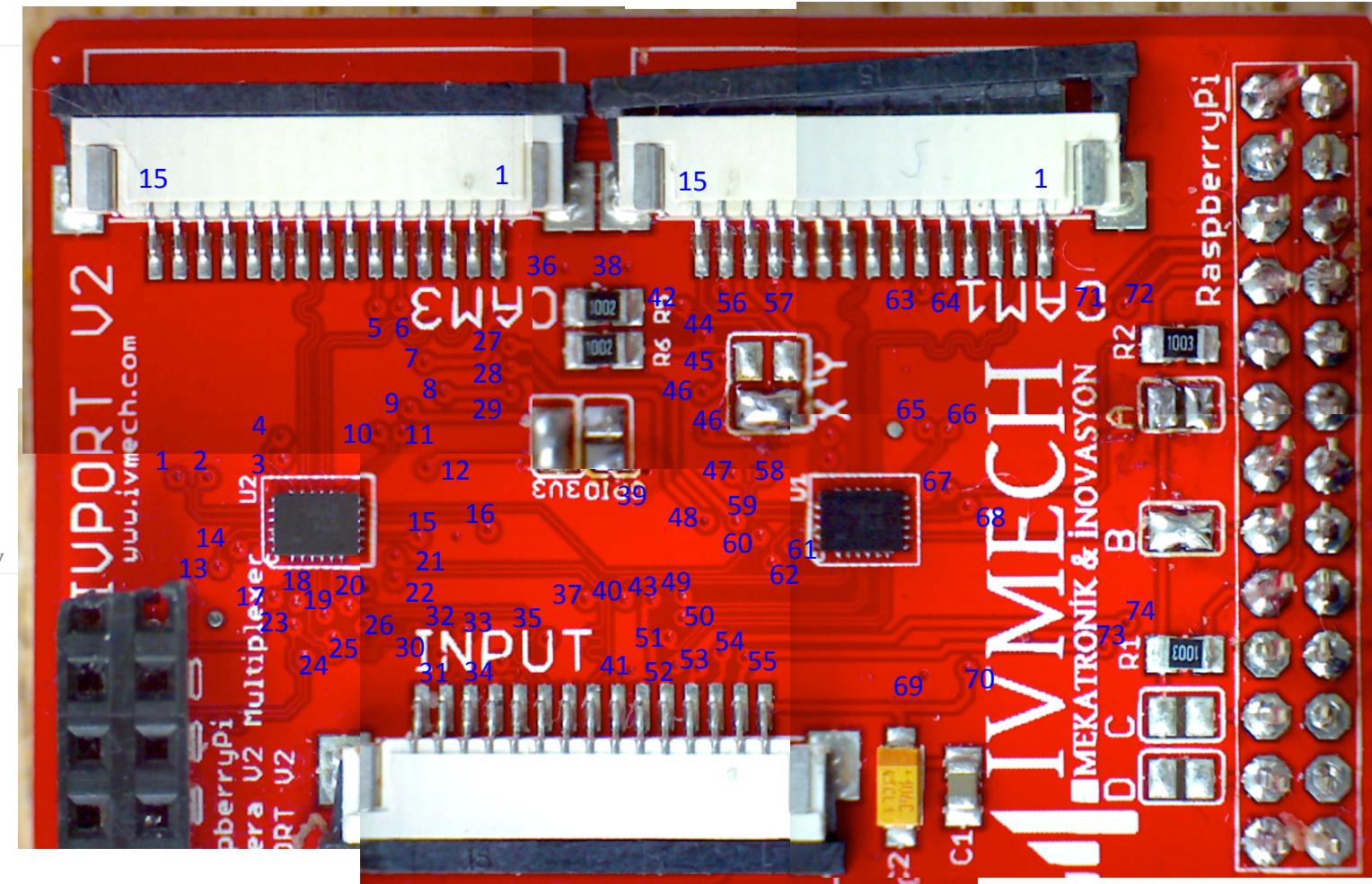
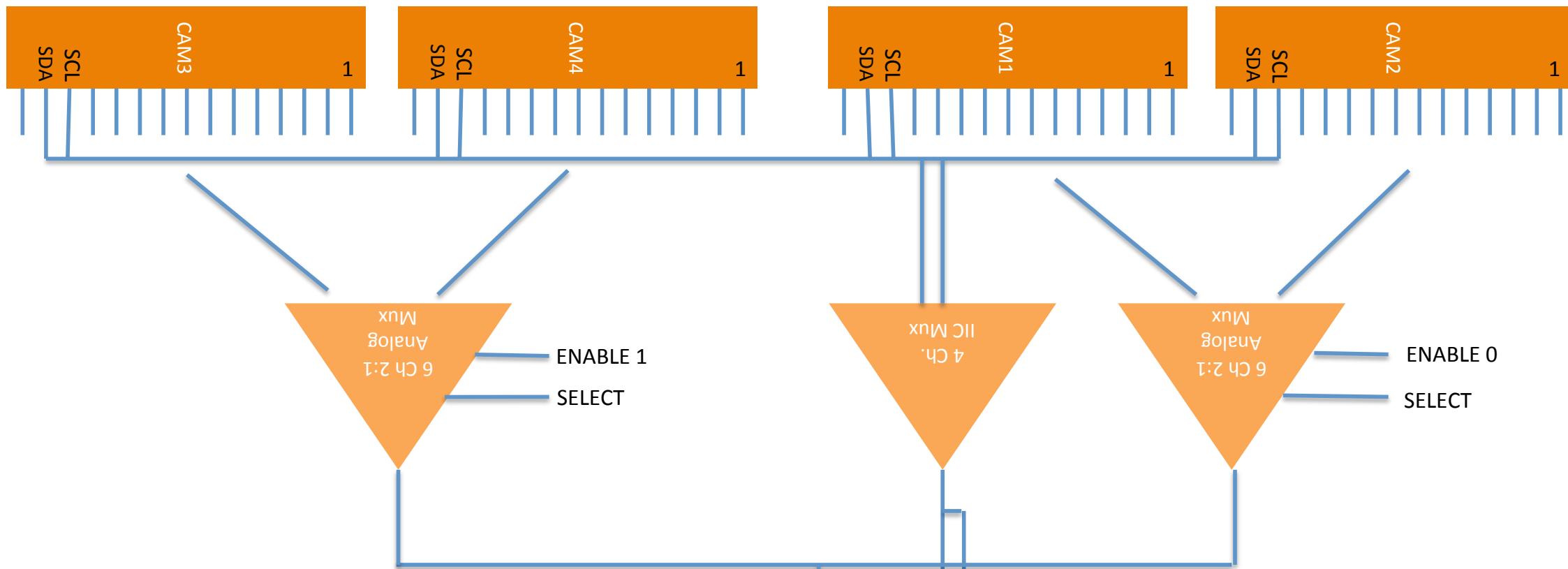


3.3V	1	2	5V
I2C1 SDA	3	4	5V
I2C1 SCL	5	6	GROUND
GPIO4	7	8	UART TXD
GROUND	9	10	UART RXD
GPIO 17	11	12	GPIO 18
GPIO 27	13	14	GROUND
GPIO 22	15	16	GPIO 23
3.3V	17	18	GPIO 24
GPIO 10 MOSI	19	20	GROUND
GPIO 9 MISO	21	22	GPIO 25
GPIO 11 SCLK	23	24	GPIO 8
GROUND	25	26	GPIO 7
DNC	27	28	DNC
GPIO 5	29	30	GROUND
GPIO 6	31	32	GPIO 12
GPIO 13	33	34	GROUND
GPIO 19	35	36	GPIO 16
GPIO 26	37	38	GPIO 20
GROUND	39	40	GPIO 21



S5 Pin	Name	Purpose
1	Ground	Ground
2	CAM1_DN0	Data Lane 0
3	CAM1_DP0	
4	Ground	Ground
5	CAM1_DN1	Data Lane 1
6	CAM1_DP1	
7	Ground	Ground
8	CAM1_CN	MIPI Clock
9	CAM1_CP	
10	Ground	Ground
11	CAM_GPIO	
12	CAM_CLK	
13	SCL0	PCI Bus
14	SDA0	
15	+3.3 V	Power Supply





RPI connector

3.3V	1	2	5V	
I2C1 SDA	3	4	5V	
I2C1 SCL	5	6	GROUND	
GPIO4	7	8	UART TXD	
GROUND	9	10	UART RXD	
GPIO 17	11	12	GPIO 18	
GPIO 27	13	14	GROUND	
GPIO 22	15	16	GPIO 23	
3.3V	17	18	GPIO 24	
GPIO 10	MOSI	19	20	GROUND
GPIO 9	MISO	21	22	GPIO 25
GPIO 11	SCLK	23	24	GPIO 8
GROUND	25	26	GPIO 7	
DNC	27	28	DNC	
GPIO 5	29	30	GROUND	
GPIO 6	31	32	GPIO 12	
GPIO 13	33	34	GROUND	
GPIO 19	35	36	GPIO 16	
GPIO 26	37	38	GPIO 20	
GROUND	39	40	GPIO 21	

Camera module connector

S5 Pin	Name	Purpose
1	Ground	Ground
2	CAM1_DN0	Data Lane 0
3	CAM1_DP0	
4	Ground	Ground
5	CAM1_DN1	Data Lane 1
6	CAM1_DP1	
7	Ground	Ground
8	CAM1_CN	MIPI Clock
9	CAM1_CP	
10	Ground	Ground
11	CAM_GPIO	
12	CAM_CLK	
13	SCL0	I ² C Bus
14	SDA0	
15	+3.3 V	Power Supply

Theory of Operation

- 6 Channel analog 2:1 mux is used to select between two 2x connector pairs.
- Select chooses first or connector and then Enable either passes the analog signals or puts outputs into tri-state.
- Separate 4Ch I2C mux selects I2C channel to pass. This mux is a I2C device and there are 5 states: (ch1-4, enable)
- Enable pin jumpers allow 4x (A through D) addresses to support up to four 4x camera boards.
- Cluster connector passes same signals as input connector across all boards.

