

AR0830_CSP59_Demo3Head_SER

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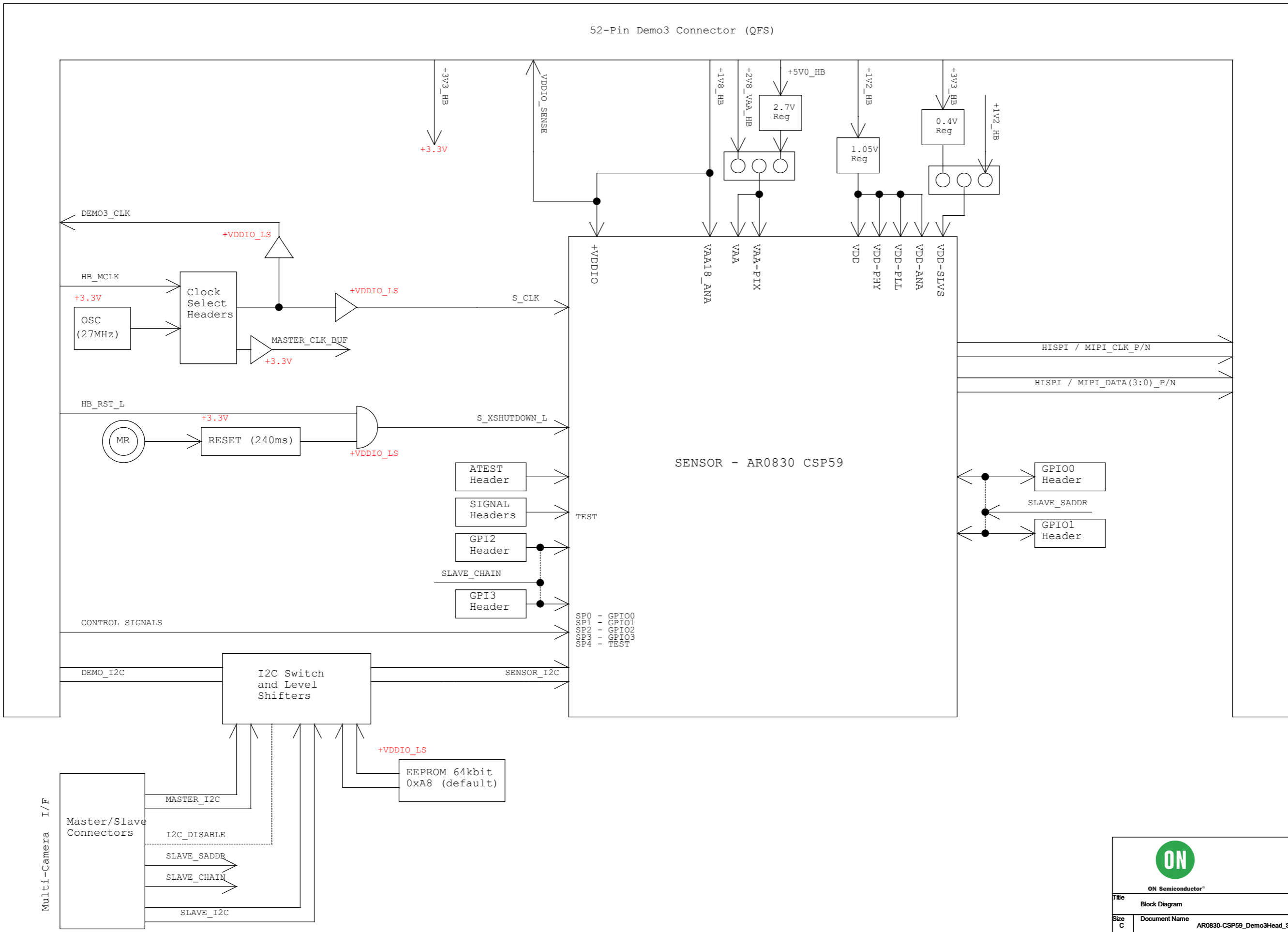
Rev	Who	Date	Description
Rev 0.0	anahar	12MAY2020 22JUN2020 12JAN2021	Initial - Based on Template (Aug 13, 2019) Socket/Lens Mount symbol updated Updated P20 setting as per AE feedback from 1-3 to 3-5.
Rev 1.0	anahar	08JUN2021	JP6 shorting jumper replaced by P6 (3 pin header) U10 regulator output change to 1.05V. Updated U9 and MP2 symbol



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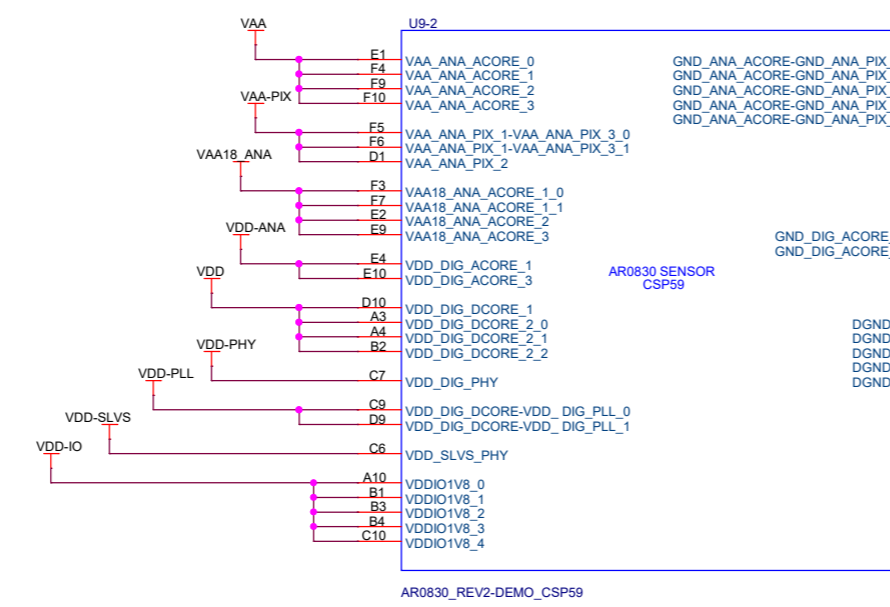
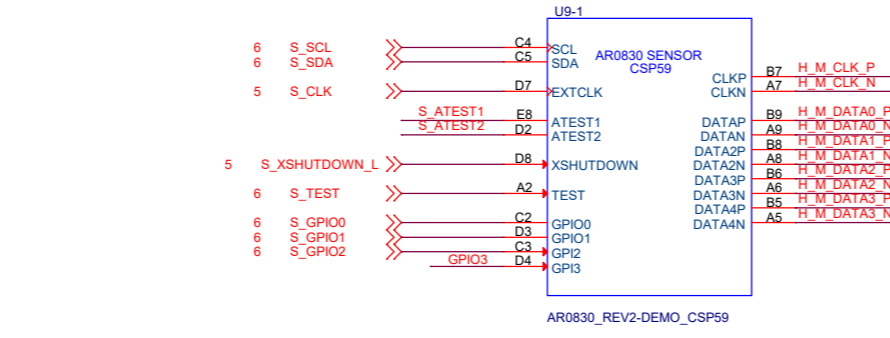
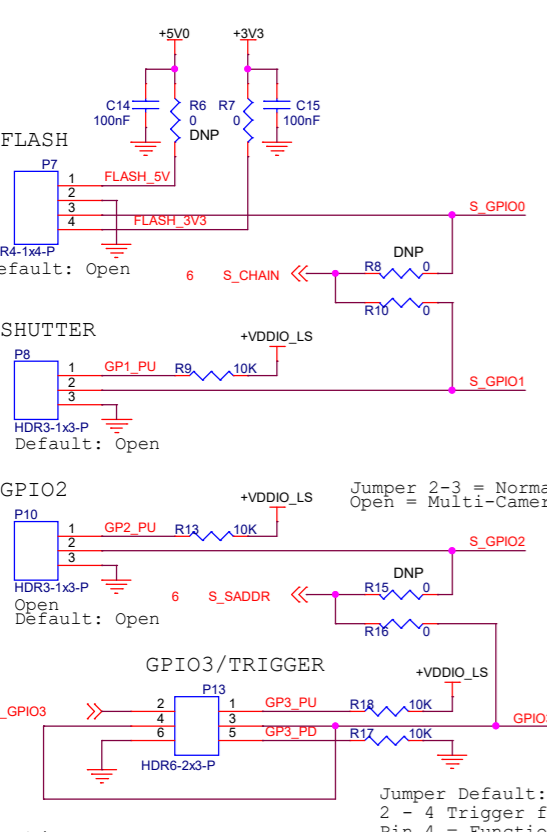
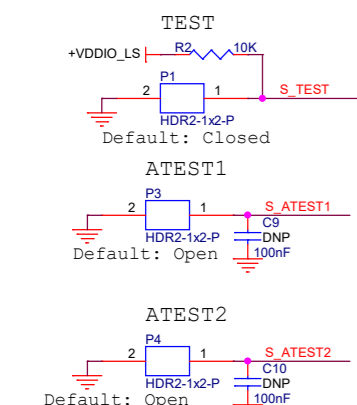
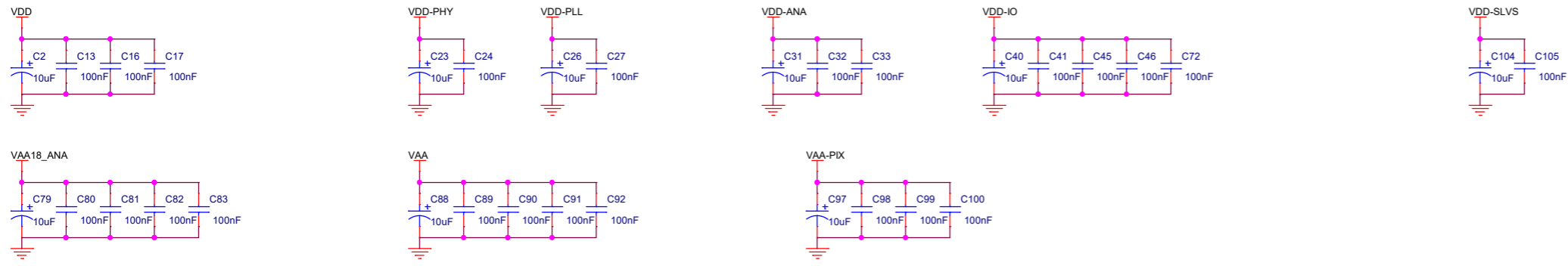
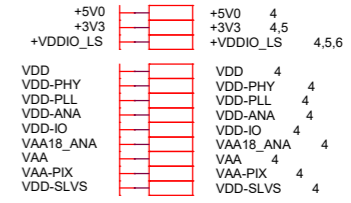
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Block Diagram

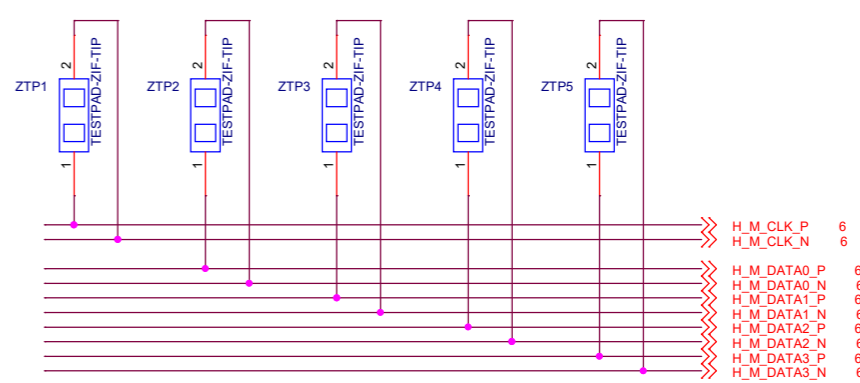


Script executed

Sensor



(Note for layout: - Place these testpads near the Demo3 I/F connector at the top side of PCB)



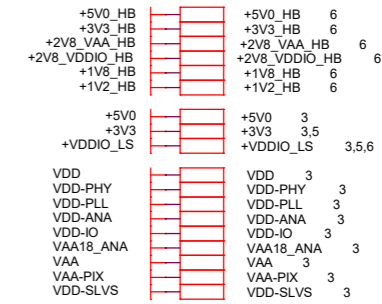
SIGNAL	GPIO FUNCTION OPTIONS
GPIO0	a. Flash output (default) b. All options in GPI2 (if use as input)
GPIO1	a. Shutter output (default) b. 3D daisy chain communication output c. All options in GPI2 (if use as input)
GPIO2	a. SADDR, second I2C device address b. Trigger signal for Slave Mode c. Standby
GPIO3	a. 3D daisy chain communication input b. All options in GPI2

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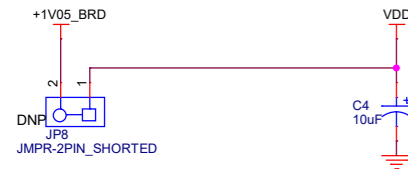
Script executed
 Jumper Default: 3-5
 2 - 4 Trigger from Demo3
 Pin 4 = Function Generator Input

Debug Headers: Cut away the shorted trace and mount header for power debugging

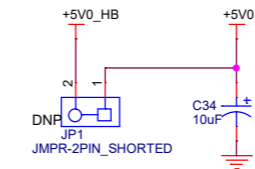
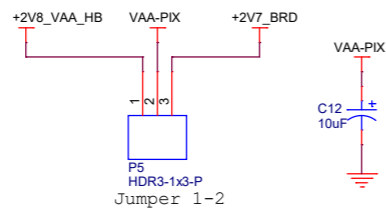
Power



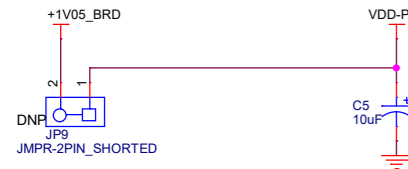
VDD 1.05V SUPPLY



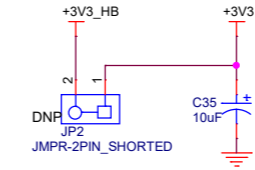
VAA-PIX 2.8V SUPPLY



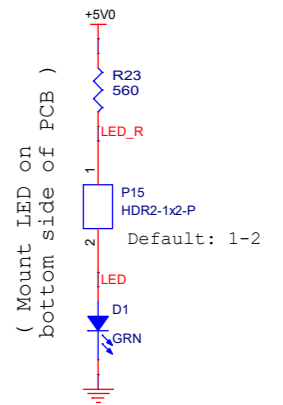
VDD-PHY 1.05V SUPPLY



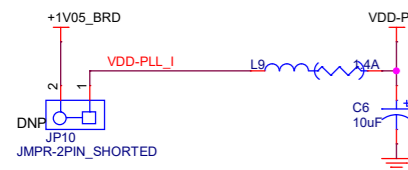
PERIPHERAL 3.3V SUPPLY



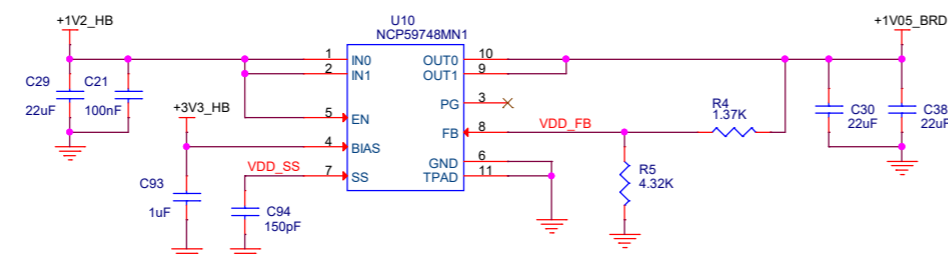
5V LED



VDD-PLL 1.05V SUPPLY

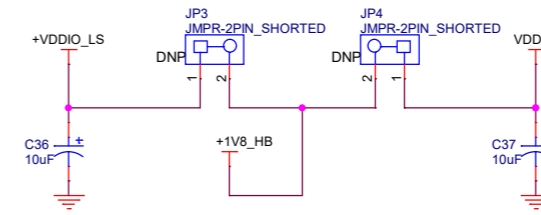


ONBOARD 1.05V SUPPLY

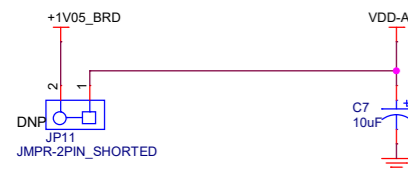


CSS set to approx 325 usec soft start time

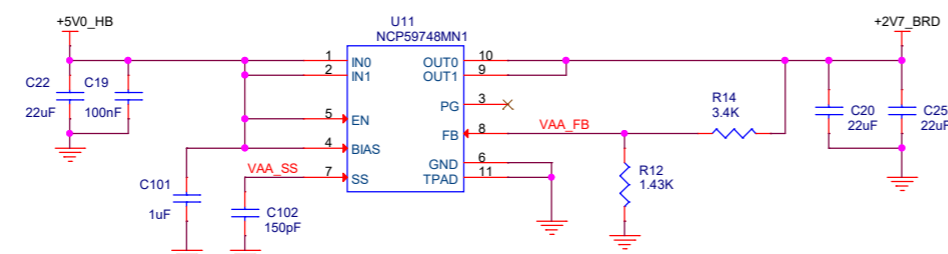
VDDIO & VDDIO_LS 1.8V SUPPLY



VDD-ANA 1.05V SUPPLY



ONBOARD 2.7V SUPPLY

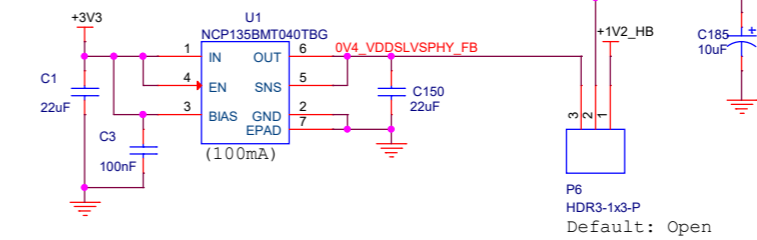


CSS set to approx 325 usec soft start time

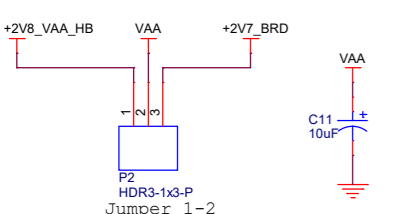
VAA18_ANA 1.8V SUPPLY



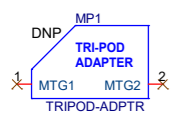
VDDSLVSPHY 0.4V SUPPLY



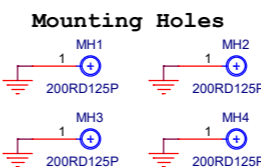
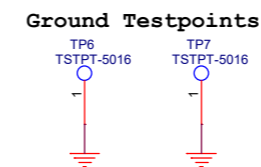
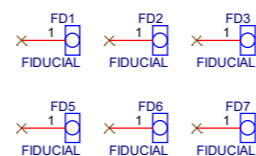
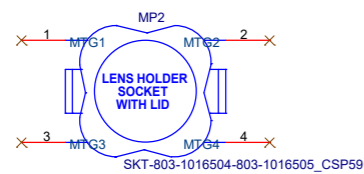
VAA 2.8V SUPPLY



Tripod Mount



Socket/Lens Mount



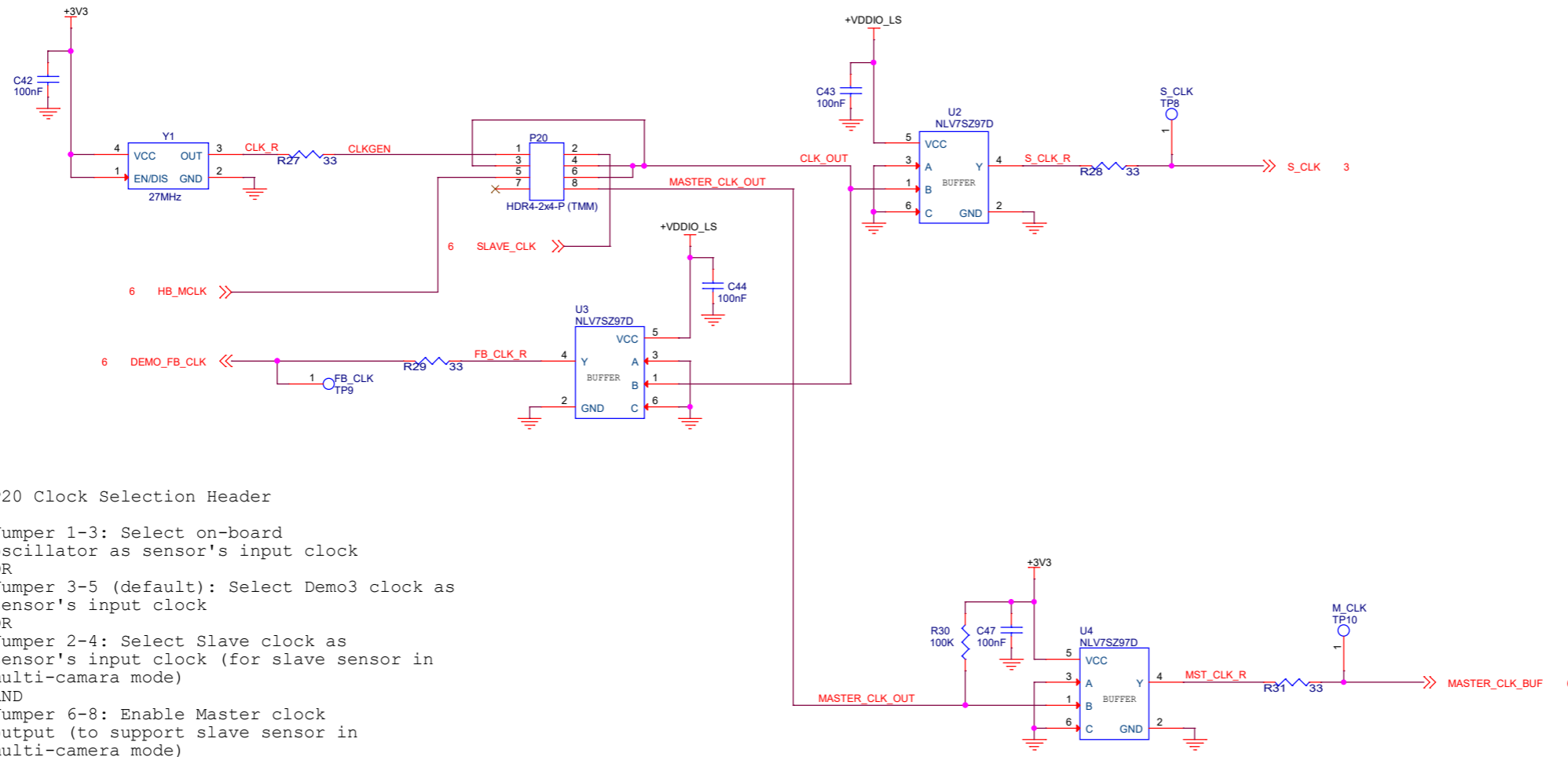
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Clock and Reset

+5V0 3,4
 +3V3 3,4
 +VDDIO_LS 3,4,6

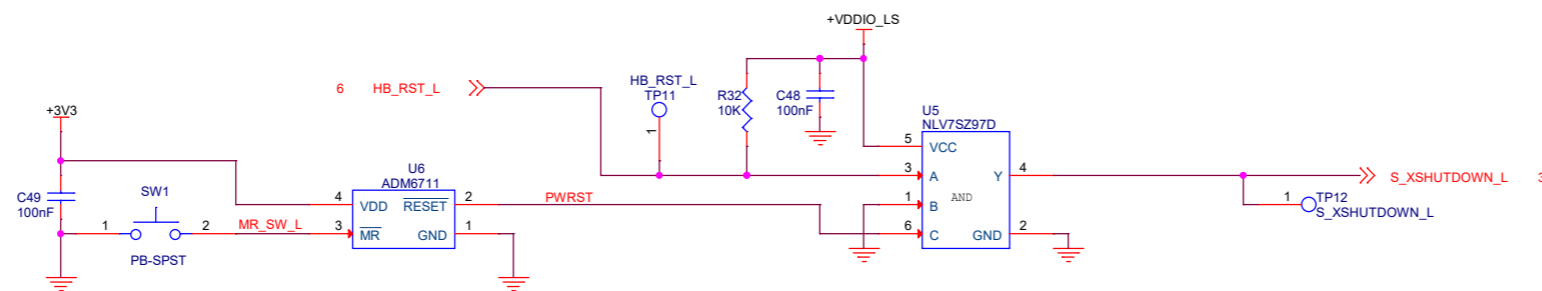
CLOCK CIRCUIT



P20 Clock Selection Header

Jumper 1-3: Select on-board oscillator as sensor's input clock
 OR
 Jumper 3-5 (default): Select Demo3 clock as sensor's input clock
 OR
 Jumper 2-4: Select Slave clock as sensor's input clock (for slave sensor in multi-camera mode)
 AND
 Jumper 6-8: Enable Master clock output (to support slave sensor in multi-camera mode)

RESET CIRCUIT



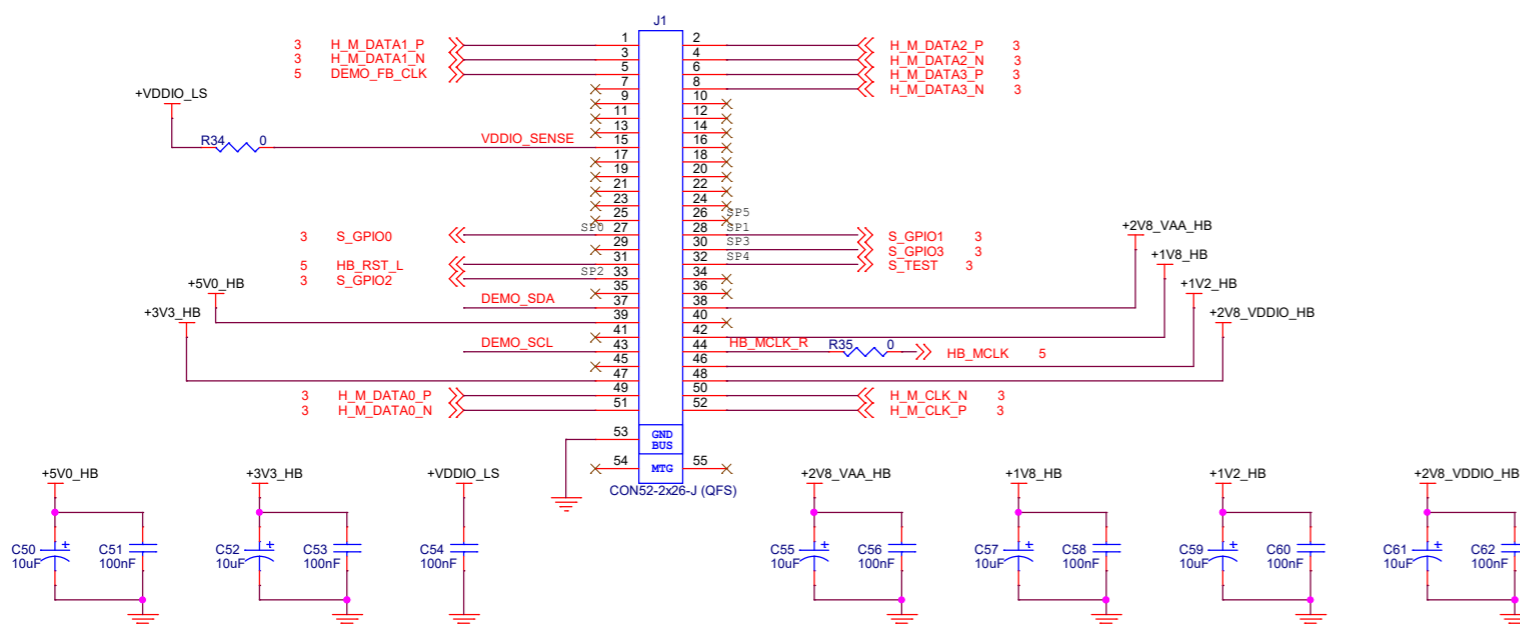
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External Interface

+5V0_HB		+5V0_HB	4
+3V3_HB		+3V3_HB	4
+2V8_VAA_HB		+2V8_VAA_HB	4
+1V8_HB		+1V8_HB	4
+1V2_HB		+1V2_HB	4
+3V3_VDDIO_LS		+3V3_VDDIO_LS	3,4,5

DEMO3 BASEBOARD I/F



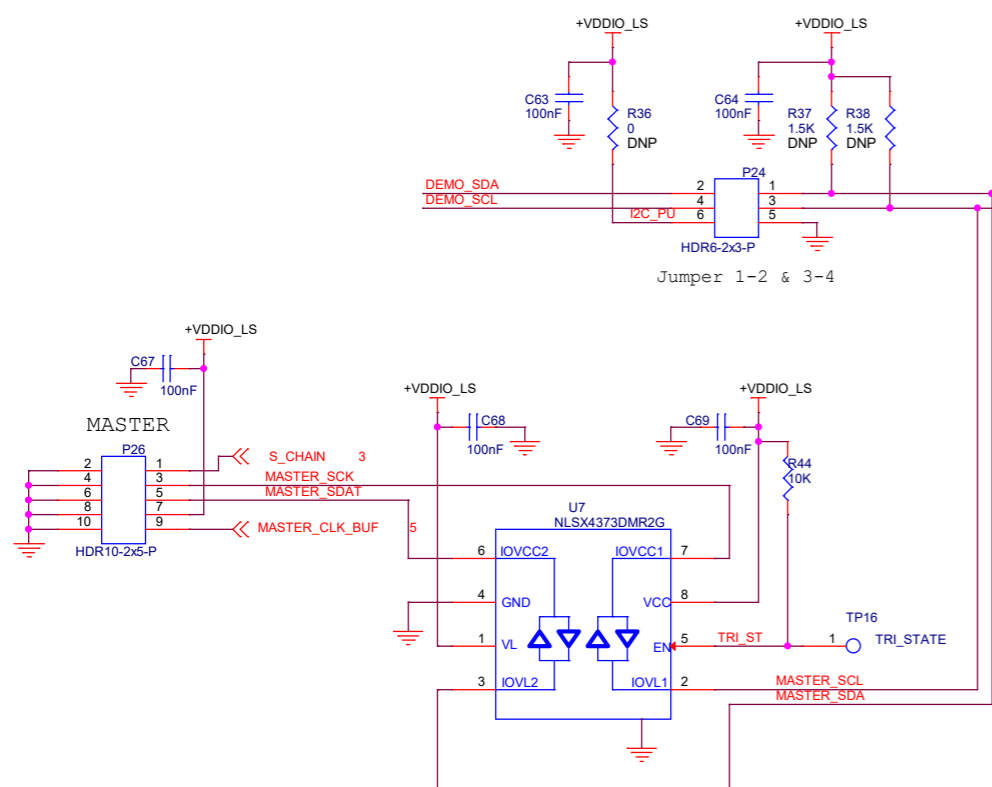
MULTI-CAMERA INTERFACE

MASTER / SLAVE Connection in Multi-Camera Mode:

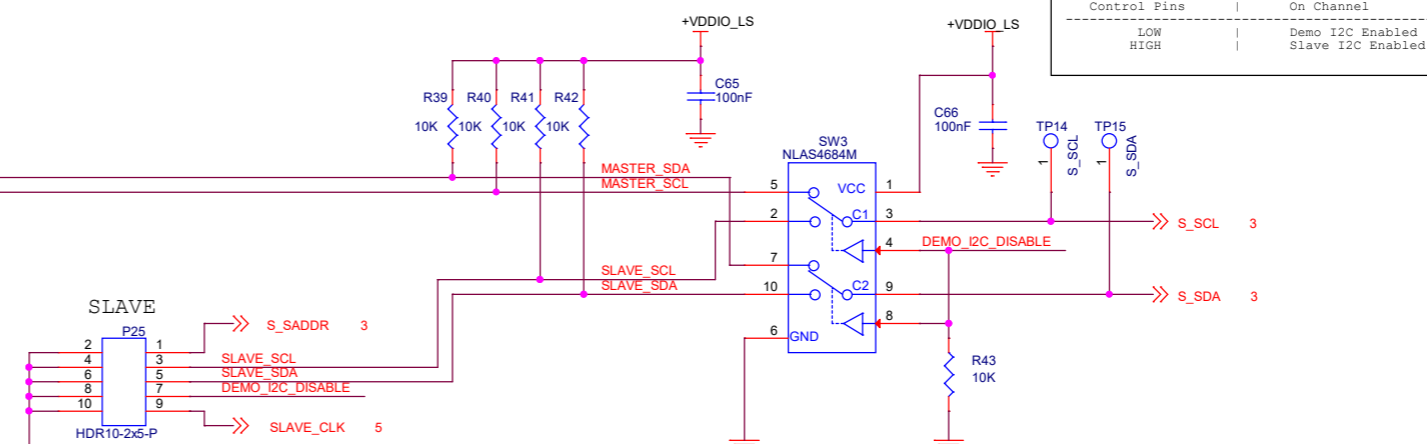
- Connect a multi-camera interface cable from the MASTER connector on the Master headboard to the SLAVE connector on the Slave headboard

- If there is a further Slave headboard down the chain, connect another multi-camera interface cable from the MASTER connector on the 1st Slave headboard to the SLAVE connector on the 2nd Slave headboard

I2C DEBUG

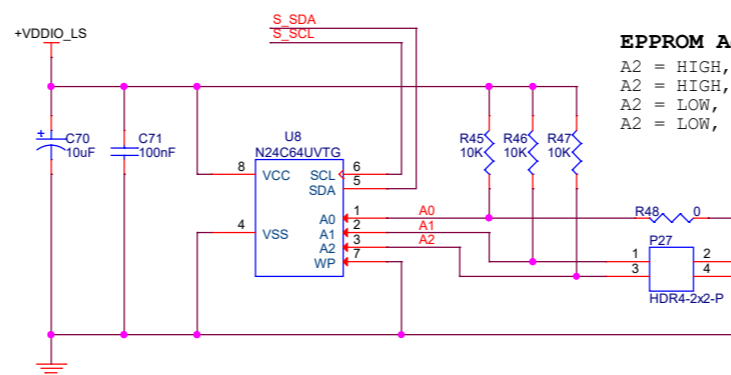


I2C SWITCH



Control Pins	On Channel
LOW	Demo I2C Enabled
HIGH	Slave I2C Enabled

LENS CORRECTION EEPROM



EEPROM Address Switch Settings:

- A2 = HIGH, A1 = LOW, A0 = LOW; Address => 0xA8 (default)
- A2 = HIGH, A1 = HIGH, A0 = LOW; Address => 0xAC
- A2 = LOW, A1 = HIGH, A0 = LOW; Address => 0xA4
- A2 = LOW, A1 = LOW, A0 = LOW; Address => 0xA0



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