

AR0237_iBGA80_Demo3Head

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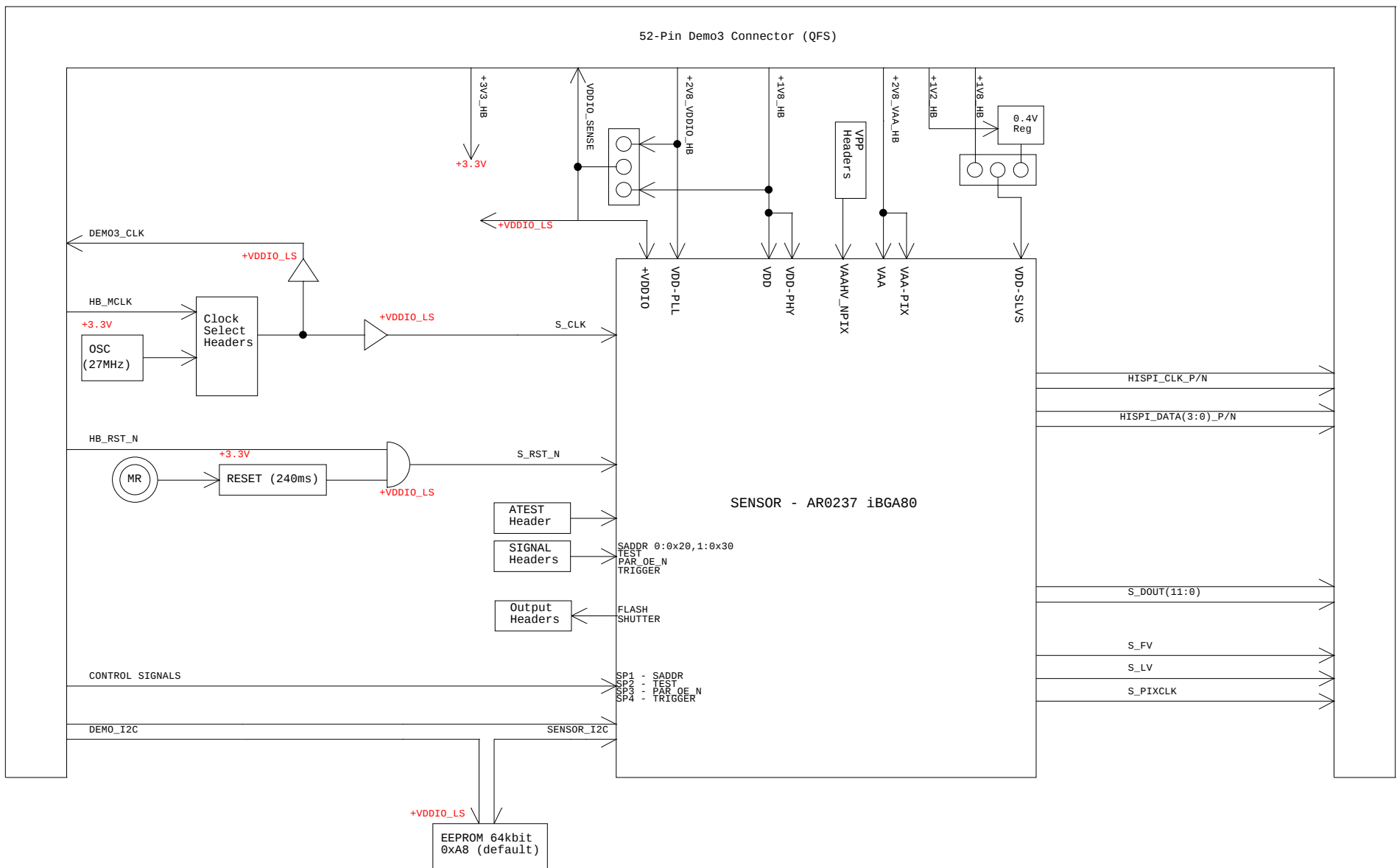
Rev	Who	Date	Description
Rev 0.0	aralex	06/10/15	Initial schematic taken from AR0230 IBGA 80 demo3 HB design because the pinout is the same. Changed P3 from 2 pin header to 3 pin header Added R50, P30; Deleted R8
		06/12/15	Updated with the new Sensor part for AR0237



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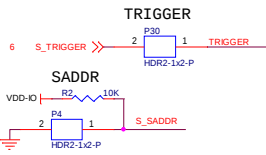
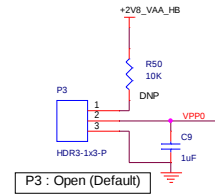
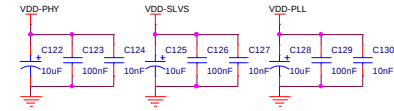
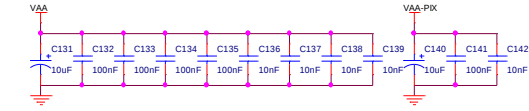
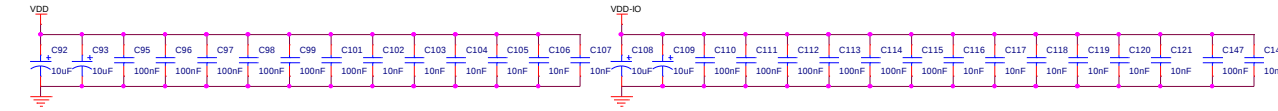
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Block Diagram

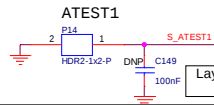
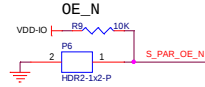
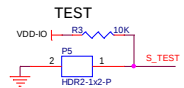


Sensor

+5V0		+5V0	4
+3V3		+3V3	4,5
+VDDIO_LS		+VDDIO_LS	4,5,6
VDD		VDD	4
VDD-ID		VDD-ID	4
VDD-PHY		VDD-PHY	4
VDD-SLVS		VDD-SLVS	4
VDD-PLL		VDD-PLL	4
VAA		VAA	4
VAA-PIX		VAA-PIX	4

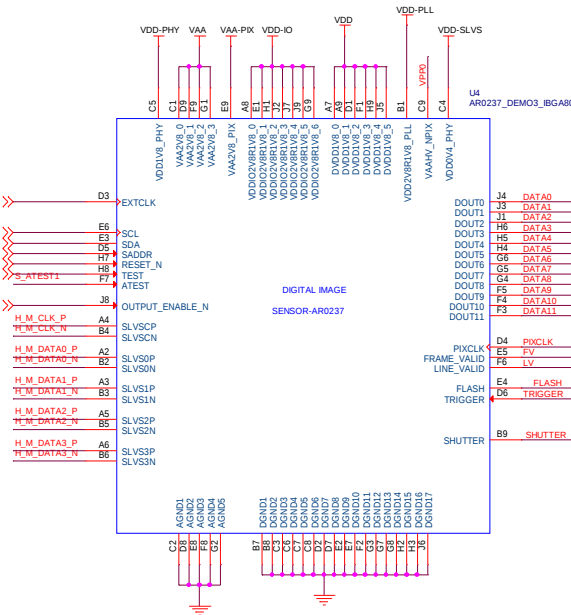
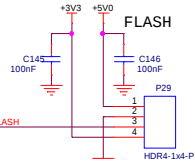
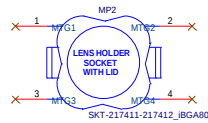
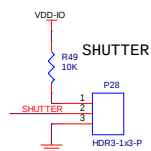


Jumper P4:
SHORT : SADDR= 0x20
OPEN : SADDR= 0x30

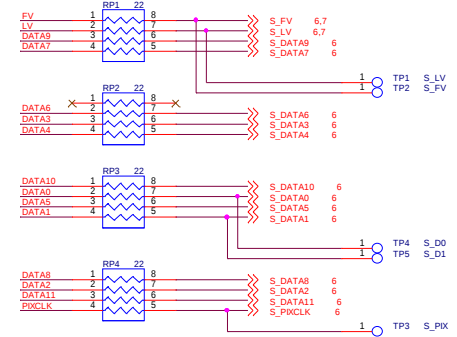
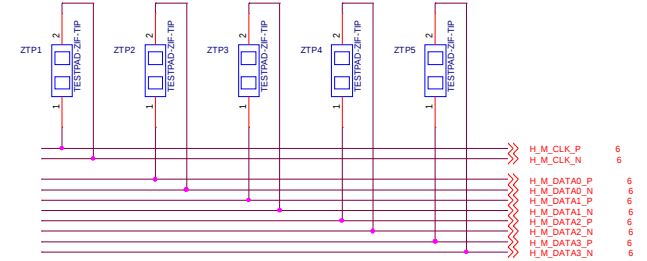


Layout Note: Place capacitor close to BGA ball of ATEST1 pin

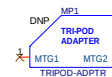
Default Jumper Settings
P5 : SHORT (S_TEST->GND)
P6 : SHORT (Parallel mode Default)
P14: SHORT (ATEST1->GND)



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



TRIPOD MOUNT

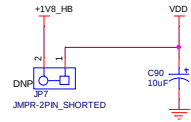


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SENSOR		
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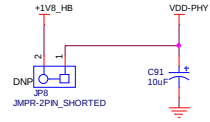
Debug Headers: Cut away the shorted trace and mount header for power debugging

Power

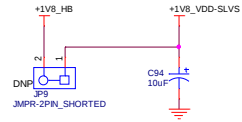
VDD 1.8V SUPPLY



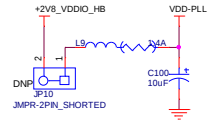
VDD-PHY 1.8V SUPPLY



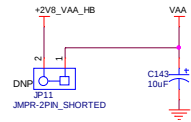
VDD-SLVS 1.8V SUPPLY



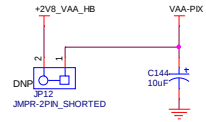
VDD-PLL 2.8V SUPPLY



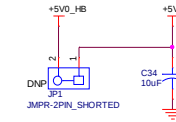
VAA 2.8V SUPPLY



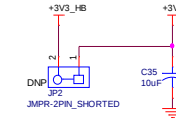
VAA-PIX 2.8V SUPPLY



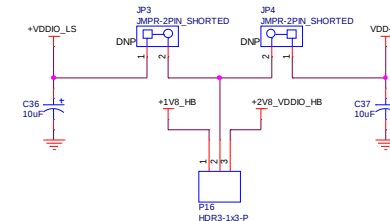
PERIPHERAL 5V SUPPLY



PERIPHERAL 3.3V SUPPLY

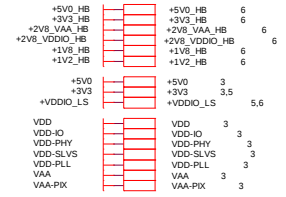
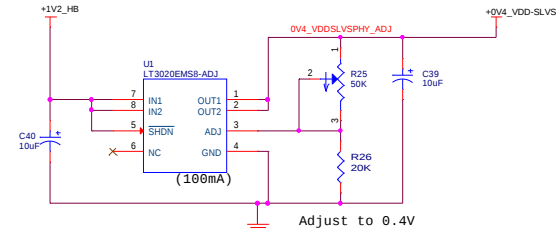


VDDIO & VDDIO_LS 1.8V/2.8V SUPPLY

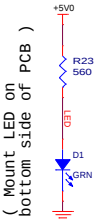


P16 Default Setting: 1-2 Short (1V8 operation)

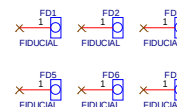
VDD_SLVS 0.4V SUPPLY



5V LED



Fiducials



Ground Testpoints



Mounting Holes



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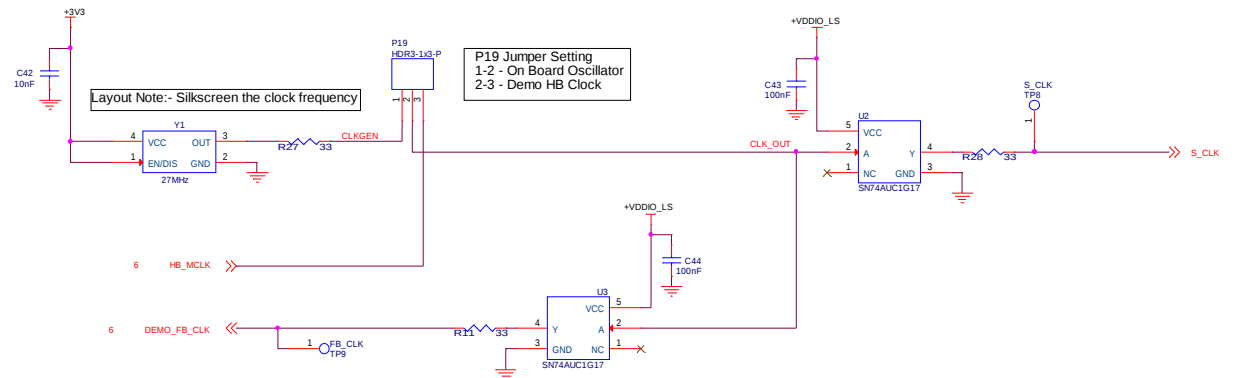
POWER

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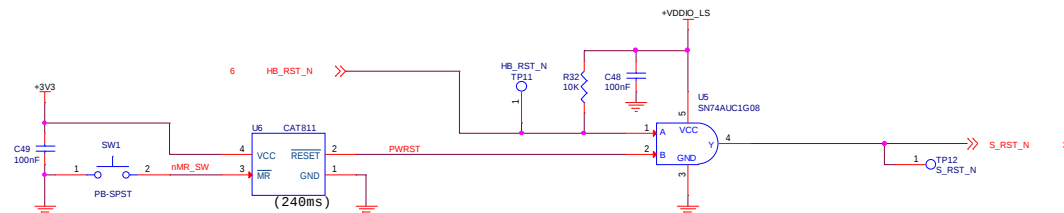
Clock and Reset

+5V0 3.4
+3V3 3.4
+VDDIO_LS 4.6

CLOCK CIRCUIT



RESET CIRCUIT



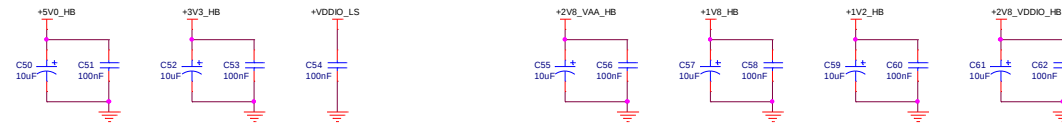
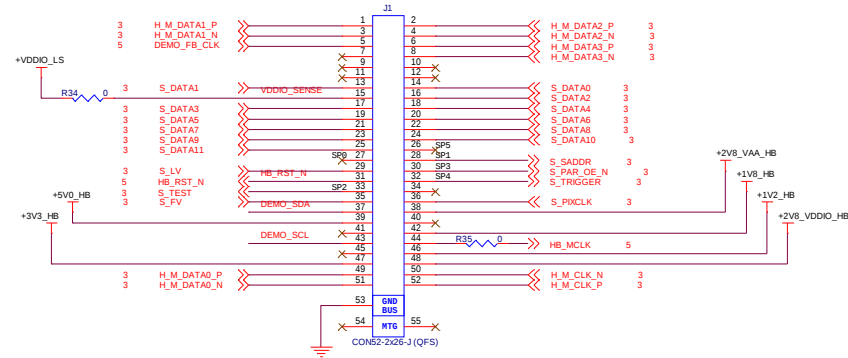
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Title		
CLOCK AND RESET		
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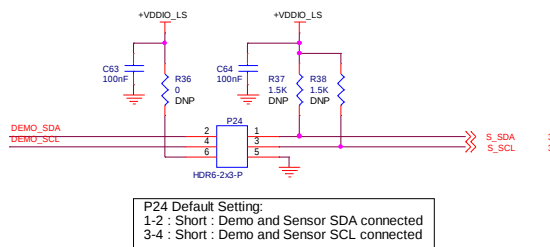
External Interface

+5V0_HB	4
+3V3_HB	4
+2V8_VAA_HB	4
+2V8_VDDIO_HB	4
+1V8_HB	4
+1V2_HB	4
+3V3_VDDIO_LS	3,4,5
+VDDIO_LS	4,5

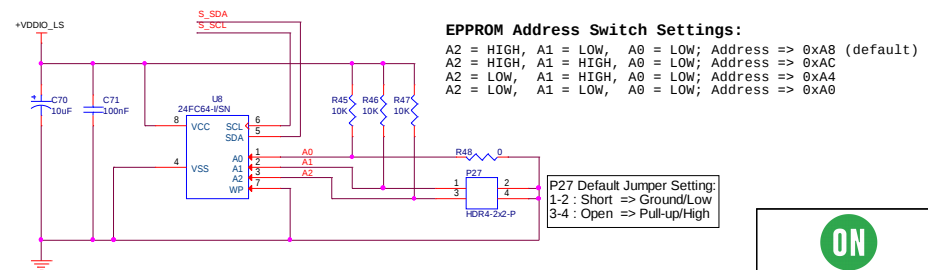
DEMO3 BASEBOARD I/F



I2C DEBUG



LENS CORRECTION EEPROM



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EXTERNAL INTERFACE	
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