

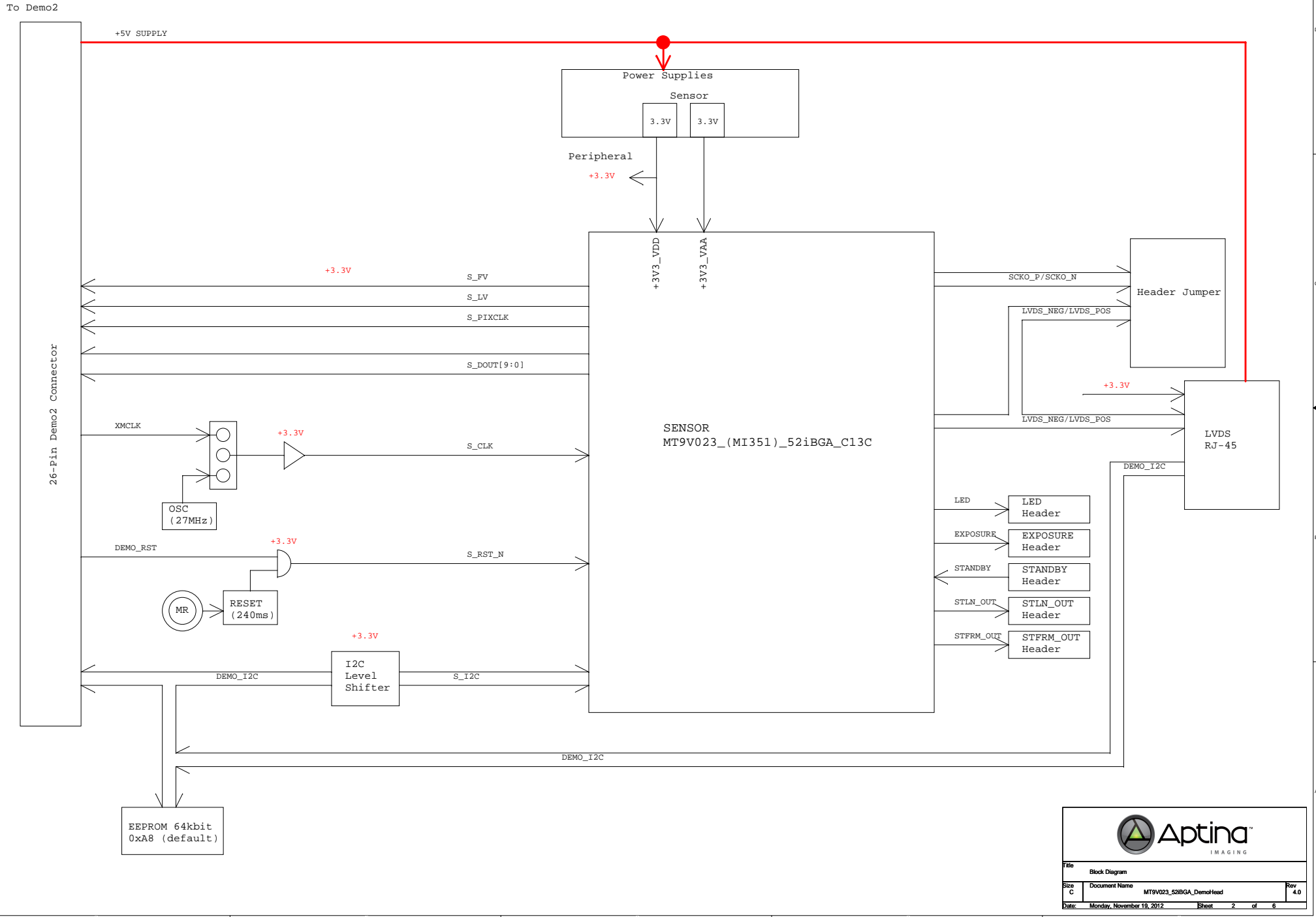
MT9V023_52iBGA_DemoHead_REV3_Cost Down

Page	Description
1	Title Page
2	Block Diagram
3	Sensor - MT9V023_(C13C)
4	Power
5	Clock and Reset
6	External Interfaces

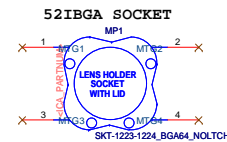
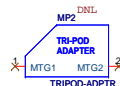
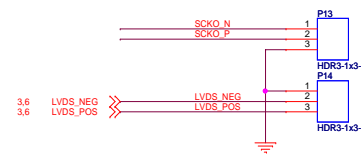
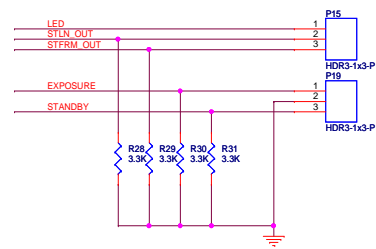
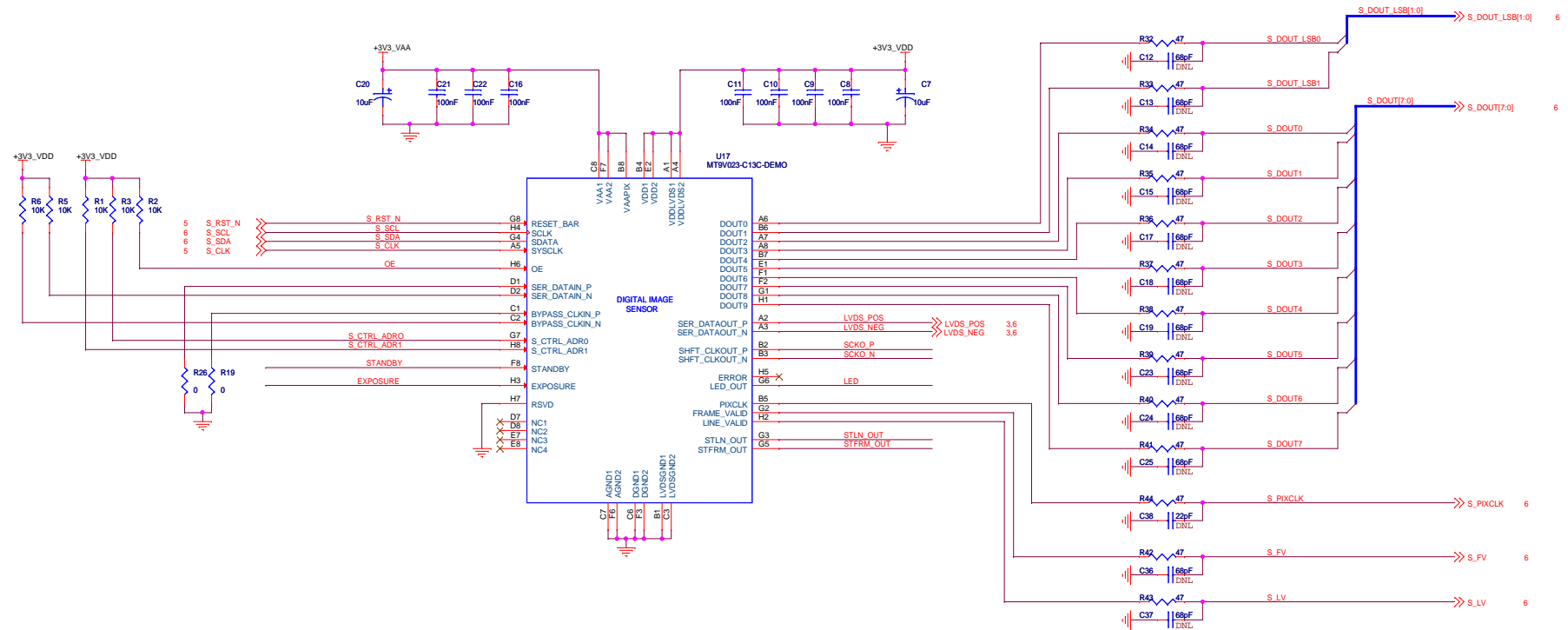
Rev	Who	Date	Description
Rev 1.0	W.B.Foo	10/25/10	Initial. For Cost down design change as follow: 1) 3.3V regulator LT1521CST-3.3 change to REG102NA-3.3V 2) All 2.5mm header jumper change to 2mm header jumper 3) Reset switch and Reset IC change to new part (SW1 & U9) 4) Remove Flip Flop IC of supply OF 13.5MHz & replace by DEMO2X supply 13.5MHz 5) Remove P82B715TD-T level shifter for LVDS I2C.
Rev 2.0	W.B.Foo	11/09/10	Update from REV1 to REV2
Rev 3.0	W.B.Foo	05/08/11	Change U7 power supply from +VDDIO_LS to +3V3 Change Serial Line cnection for SCKO_N/P, LVDSNEG/POS Reconnect S_CL/S_SCLK
Rev 4.0	Joe KK	11/19/12	Add EMC counter-measures <pg3, 5 & 6>



Block Diagram



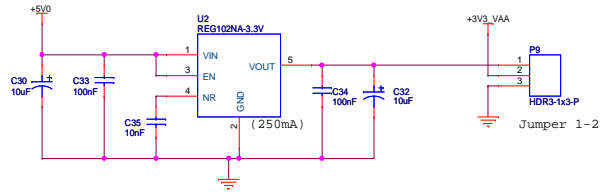
Sensor - MT9V023_(MI351)_52iBGA



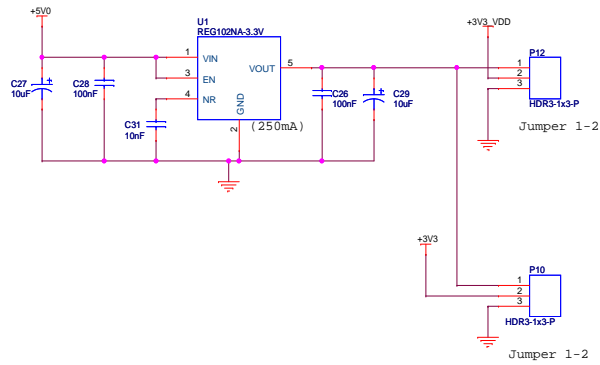
File: Sensor		
Document Name: MT9V023_52iBGA_DemoHead		
Size: C	Rev: 4.0	
Date: Monday, November 19, 2012 Sheet 3 of 6		

Power

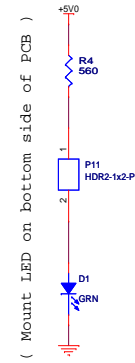
ANALOG VAA & VAAPIX 3.3 SUPPLY



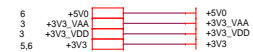
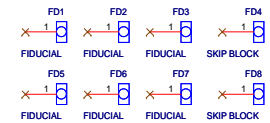
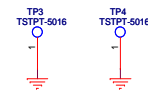
VDD & PERIPHERAL 3.3V SUPPLY




5V LED



Ground Testpoints



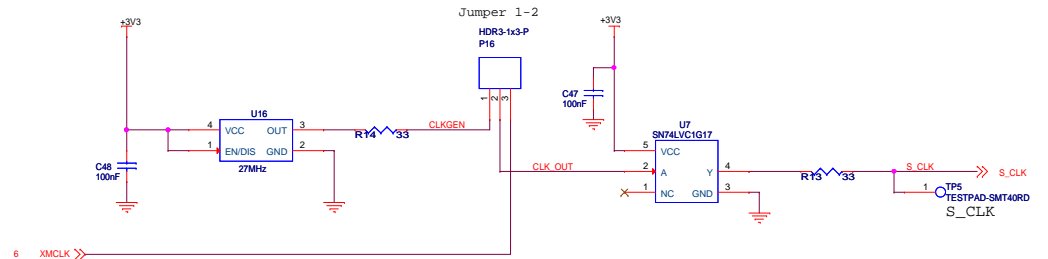


File		
Power		
Size	Document Name	Rev
C	MT9V023_52BGA_DemoHead	3.0
Date:	Monday, November 19, 2012	Sheet 4 of 6

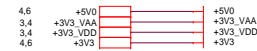
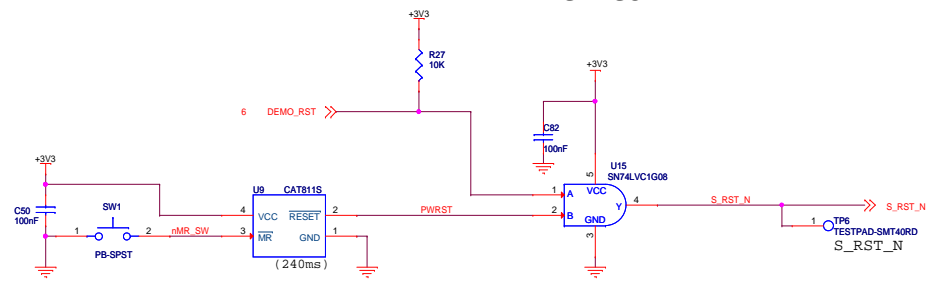
Clock and Reset

CLOCK CIRCUIT

User Note: P16
 Jumper (1-2) : OSC CLK (27MHz)
 Jumper (2-3) : DEMO2X CLK (13.5MHz)

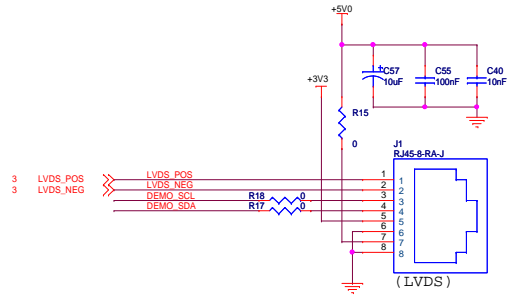


RESET CIRCUIT

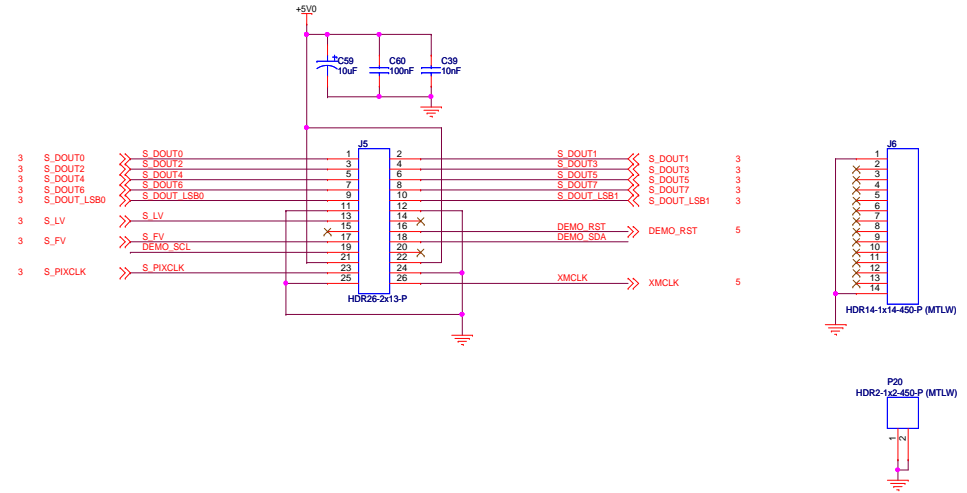


External Interface

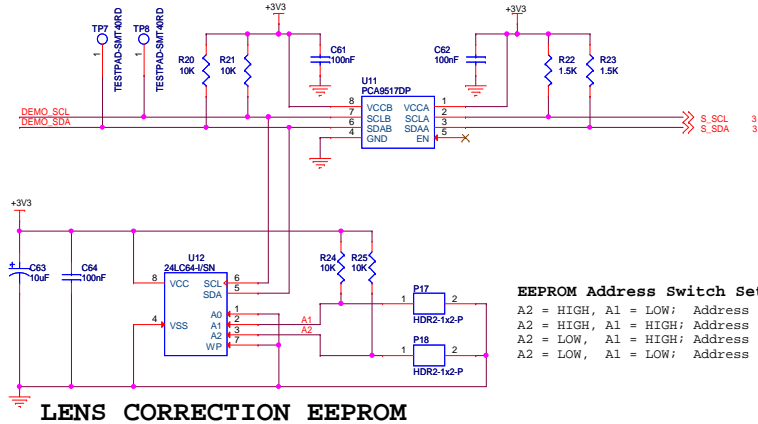
LVDS INTERFACE



PARALLEL INTERFACE



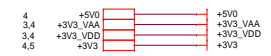
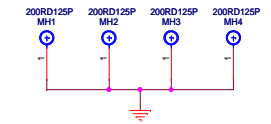
I2C BUFFER



EEPROM Address Switch Settings:

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

Mounting Holes



File: External Interface		
Size: C	Document Name: MT9V023_52BGA_DemoHead	Rev: 3.0
Date: Monday, November 19, 2012	Sheet: 6 of 6	