MT9V124EBKSTCH-GEVB

MT9V124 Evaluation Board User's Manual

ON Semiconductor®

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EVAL BOARD USER'S MANUAL

Figure 1. MT9V124 Evaluation Board

Evaluation Board Overview

The evaluation boards are designed to demonstrate the features of ON Semiconductor's image sensors products. This headboard is intended to plug directly into the Demo 2X system. Test points and jumpers on the board provide access to the clock, I/Os, and other miscellaneous signals.

Features

- Clock Input
  - Default – 22 MHz Crystal Oscillator
  - Optional Demo 2X Controlled MClk
- Two Wire Serial Interface
  - Selectable Base Address
- Serial LVDS Interface
- ROHS Compliant

Block Diagram

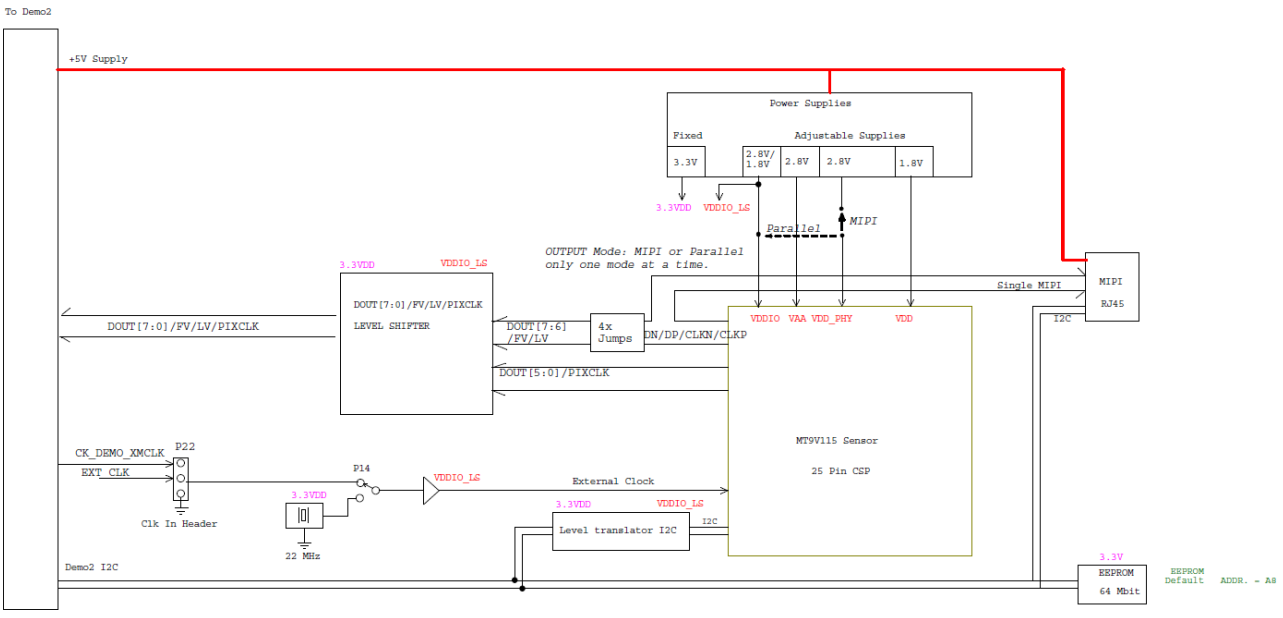

Figure 2. Block Diagram of MT9V124EBKSTCH−GEVB

Top View

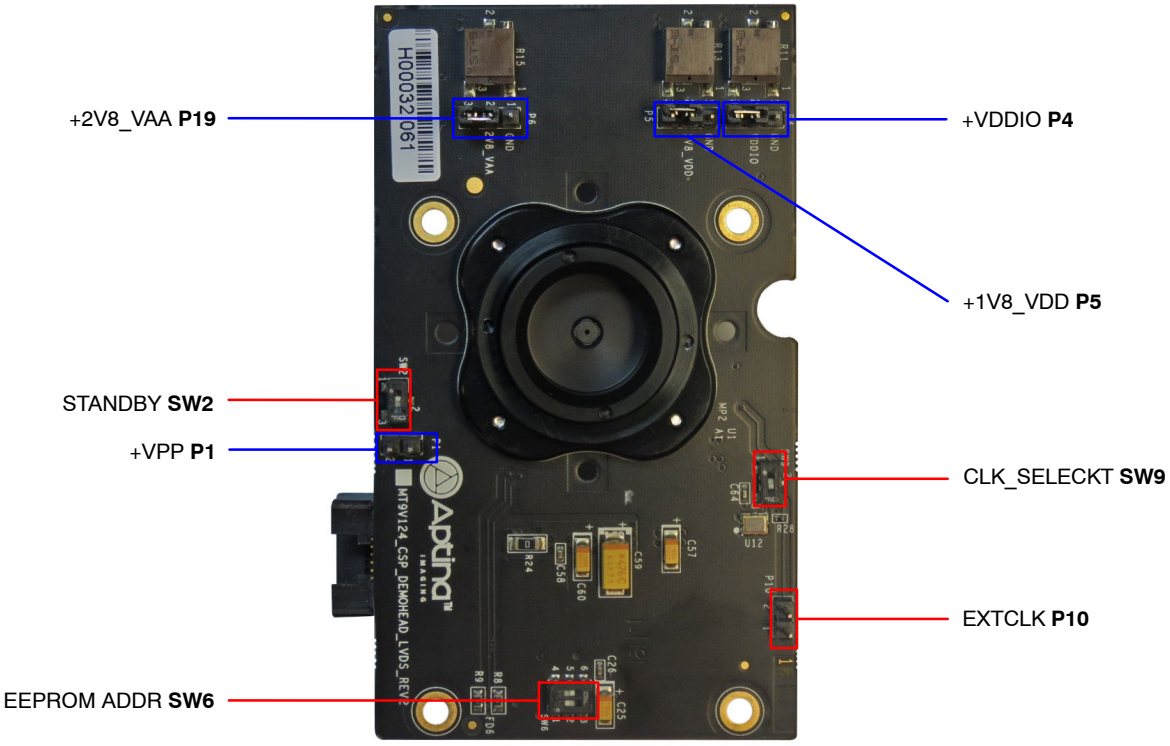

Figure 3. Top View of Evaluation Board − Jumpers

Bottom View

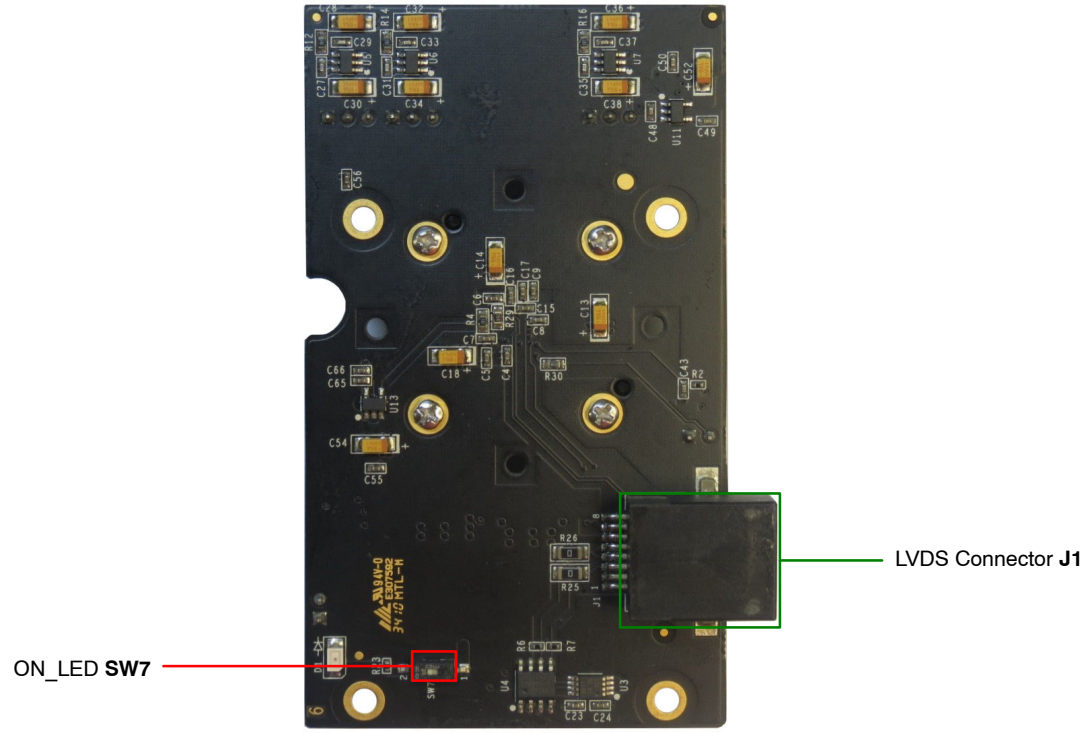

Figure 4. Bottom View of the Evaluation Board − Connectors

Jumper Pin Locations

The jumpers on headboards start with Pin 1 on the leftmost side of the pin. Grouped jumpers increase in pin size with each jumper added.

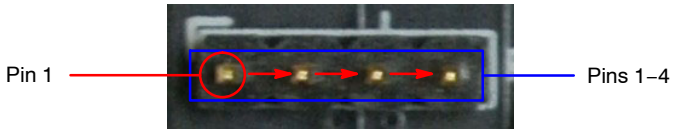

Figure 5. Pin Locations for a Single Jumper. Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

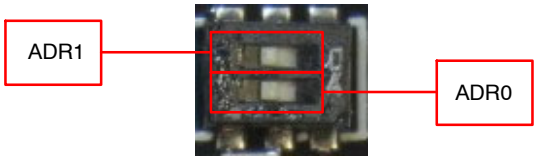

Figure 6. Address Switch Locations in their Default Positions. The first Switch(ADR0) and the second Switch (ADR1) of SW3 are set to ON

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

Jumper/Header No.	Jumper/Header Name	Pins	Description
P1	+VPP	Open (Default)	For connection to external +VPP supply for OTPM
P4	+VDDIO	2−3 (Default)	Connection to on-board +VDDIO power supply
		1−2	External power supply connection
P5	+1V8_VDD	2−3 (Default)	Connection to on-board +1V8_VDD power supply
		1−2	External power supply connection
P6	+2V8_VAA	2−3 (Default)	Connection to on-board +2V8_VAA power supply
		1−2	External power supply connection
P10	EXTCLK	Open (Default)	For connection to external clock
SW2	STANDBY	1−2 (Default)	Normal Operation
		2−3	Standby Mode
SW6	EEPROM ADDR	A2 On, A1 Off (Default)	EEPROM Address set to 0xA8
		A2 On, A1 On	EEPROM Address set to 0xAC
		A2 Off, A1 On	EEPROM Address set to 0xA4
		A2 Off, A1 Off	EEPROM Address set to 0xA0
SW7	ON_LED	ON (Default)	Turn on LED indicator to indicate power on
		OFF	Turn off LED indicator to indicate power on
SW9	CLK_SELECT	ON (Default)	Select on-board 22 MHz oscillator
		OFF	Select external clock from P10

Interfacing to ON Semiconductor Demo 2X Baseboard

The ON Semiconductor Demo 2X baseboard has a similar connector which mates with J1 of the headboard. The four mounting holes secure the baseboard and the headboard with spacers and screws.

ADDITIONAL INFORMATION

TECHNICAL PUBLICATIONS:
Technical Library: www.onsemi.com/design/resources/technical−documentation
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