

MT9V114EBKSTC5H-GEVB

MT9V114 Evaluation Board User's Manual



ON Semiconductor®

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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 clock, I/Os and other miscellaneous signals.

Features

- Clock Input
 - ◆ Default – 27 MHz crystal oscillator
 - ◆ Optional Demo 2X controlled MClk
- Two Wire Serial Interface
 - ◆ Selectable base address
- Parallel Interface
- ROHS Compliant

EVAL BOARD USER'S MANUAL



Figure 1. MT9V114 Evaluation Board

Block Diagram

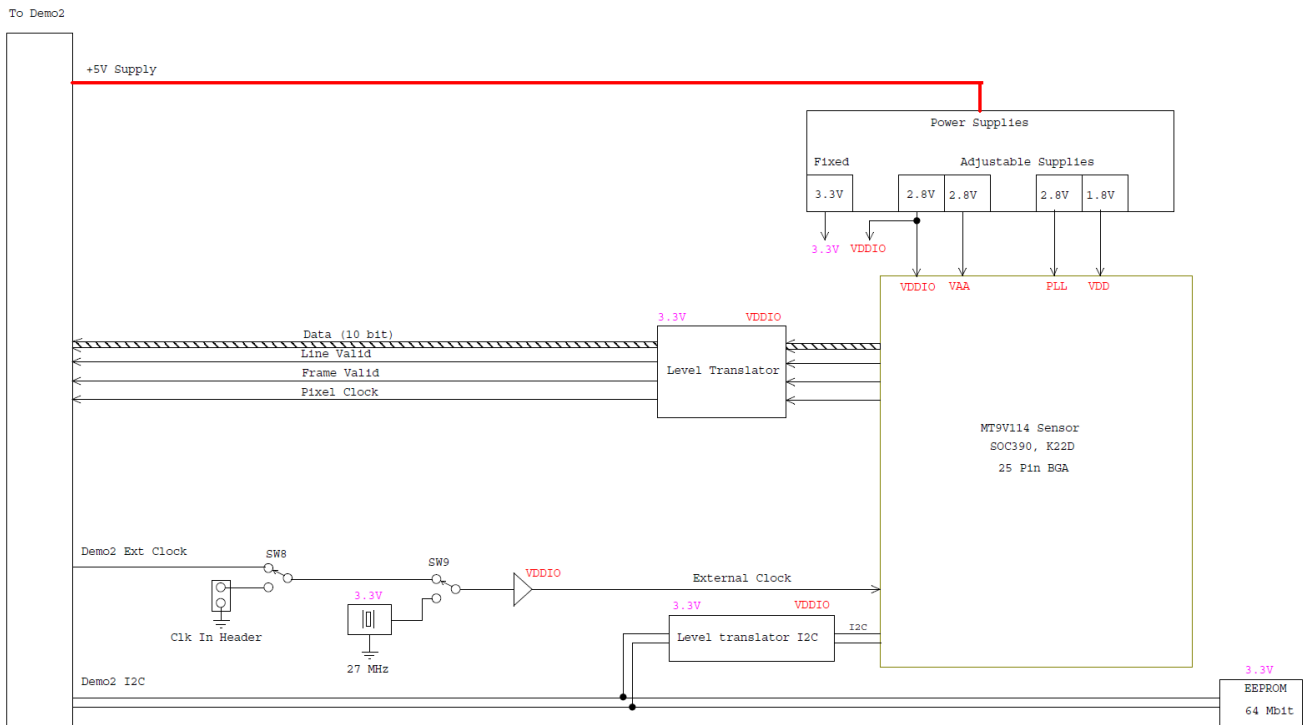


Figure 2. Block Diagram of MT9V114EBKSTC5H-GEVB

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Top View

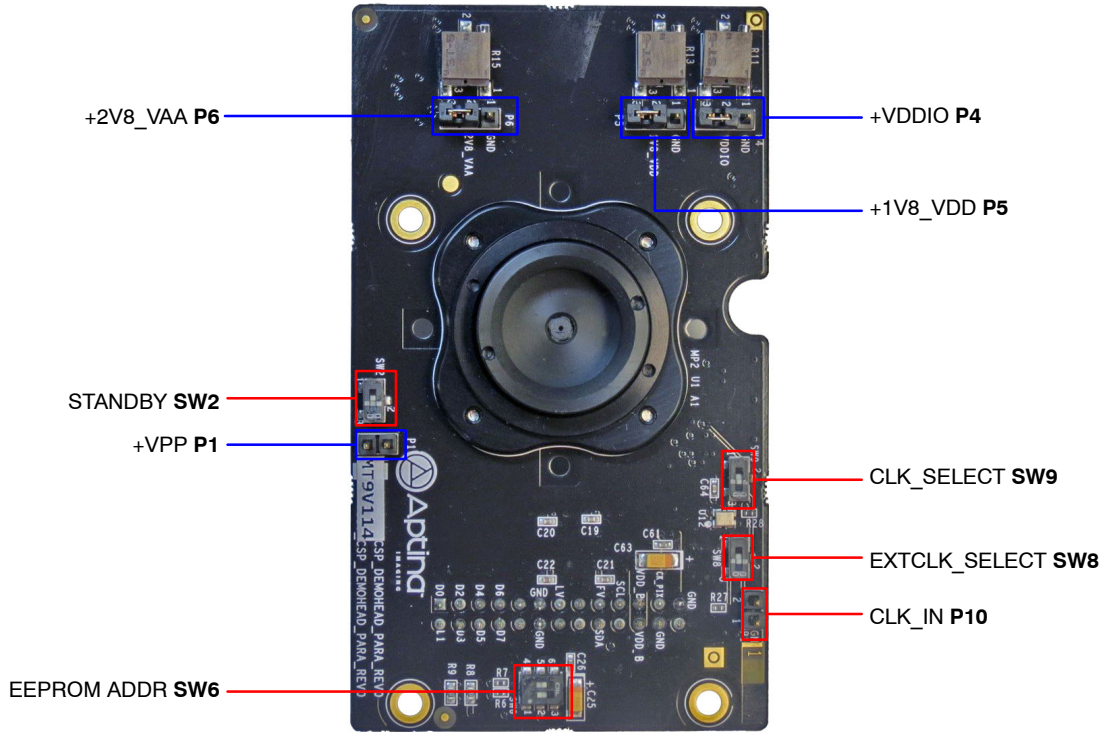


Figure 3. Top View of Evaluation Board – Default Jumpers

Bottom View

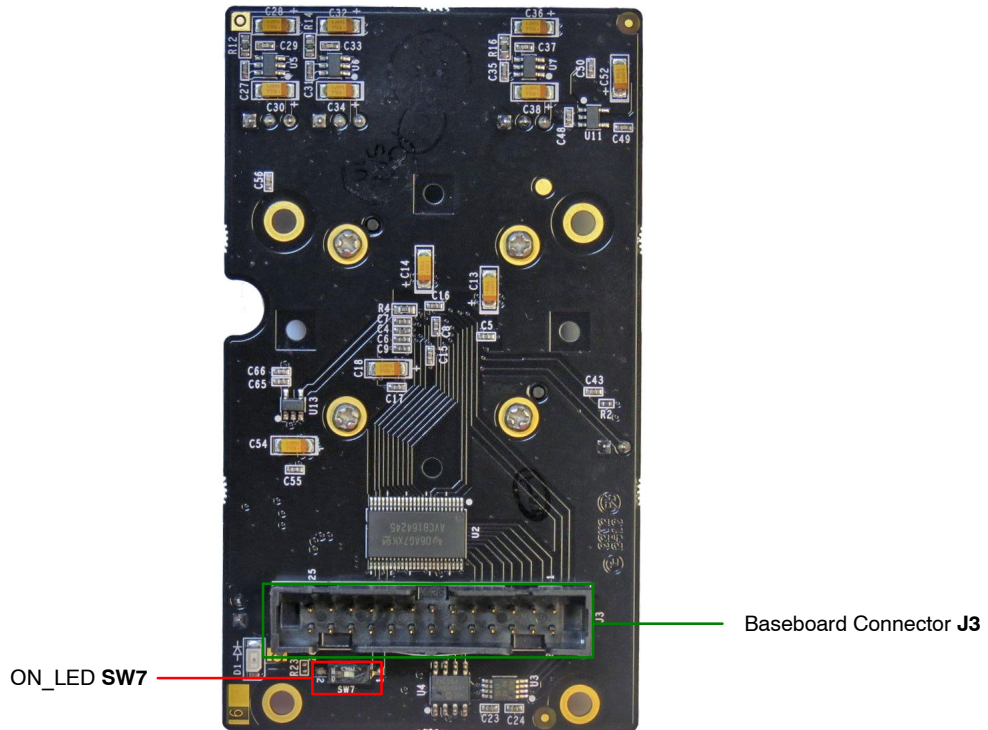


Figure 4. Bottom View of the Evaluation Board – Connector

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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

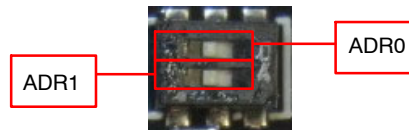


Figure 6. Address Switch Locations in their Default Positions.
The First Switch (ADR0) and the Second Switch (ADR1) of SW3 are Set to ON

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

| Jumper/Header No. | Jumper/Header Name | Pins | Description |
|-------------------|--------------------|-------------------------|---|
| P1 | +VPP | Open (Default) | Connection to external +VPP power supply for OTPM |
| P4 | +VDDIO | 2-3 (Default) | Connects to on-board +VDDIO power supply |
| | | 1-2 | External power supply connection |
| P5 | +1V8_VDD | 2-3 (Default) | Connects 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 | CLK_IN | Open (Default) | Connects to external clock |
| SW2 | STANDBY | Off (Default) | Normal operation |
| | | On | 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) | Connects LED indicator to +VDD_BUS |
| | | Off | Turn off LED indicator |
| SW8 | EXTCLK_SELECT | On (Default) | Connects to Pin 2 of P10 |
| | | Off | Connects to clock signal from Demo 2X board |

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Table 1. JUMPERS AND HEADERS (continued)

| Jumper/Header No. | Jumper/Header Name | Pins | Description |
|-------------------|--------------------|---------------|---------------------------------|
| SW9 | CLK_SELECT | Off (Default) | Connects to on-board oscillator |
| | | On | Connects to output of SW8 |

Interfacing to ON Semiconductor Demo 2X Baseboard

The ON Semiconductor Demo 2X baseboard has a similar 26-pin connector which mates with J3 of the

headboard. The four mounting holes secure the baseboard and the headboard with spacers and screws.

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