

MT9V113PACSTCH-GEVB

MT9V113 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 the 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
- MIPI Interface
- ROHS Compliant

EVAL BOARD USER'S MANUAL



Figure 1. MT9V113 Evaluation Board

Block Diagram

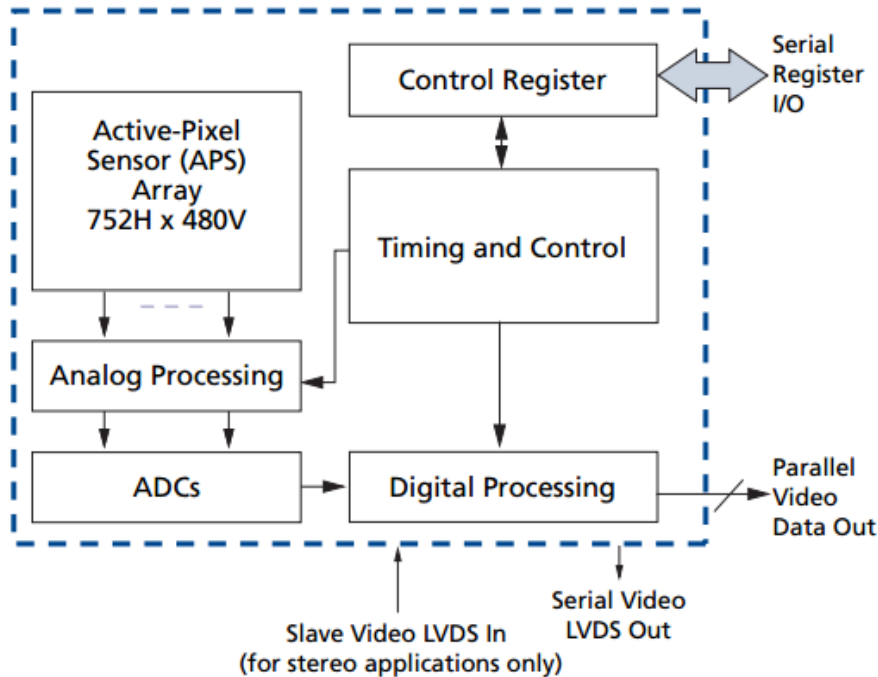


Figure 2. Block Diagram of MT9V113PACSTCH-GEVB

MT9V113PACSTCH-GEVB

Top View

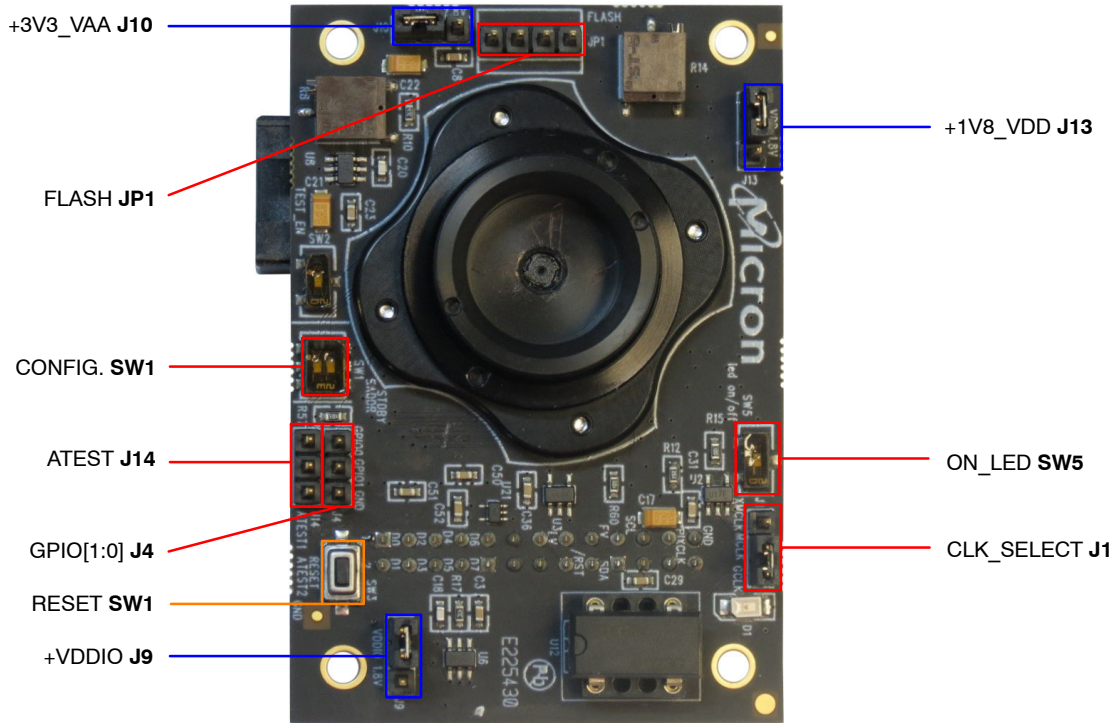


Figure 3. Top View of Evaluation Board

Bottom View

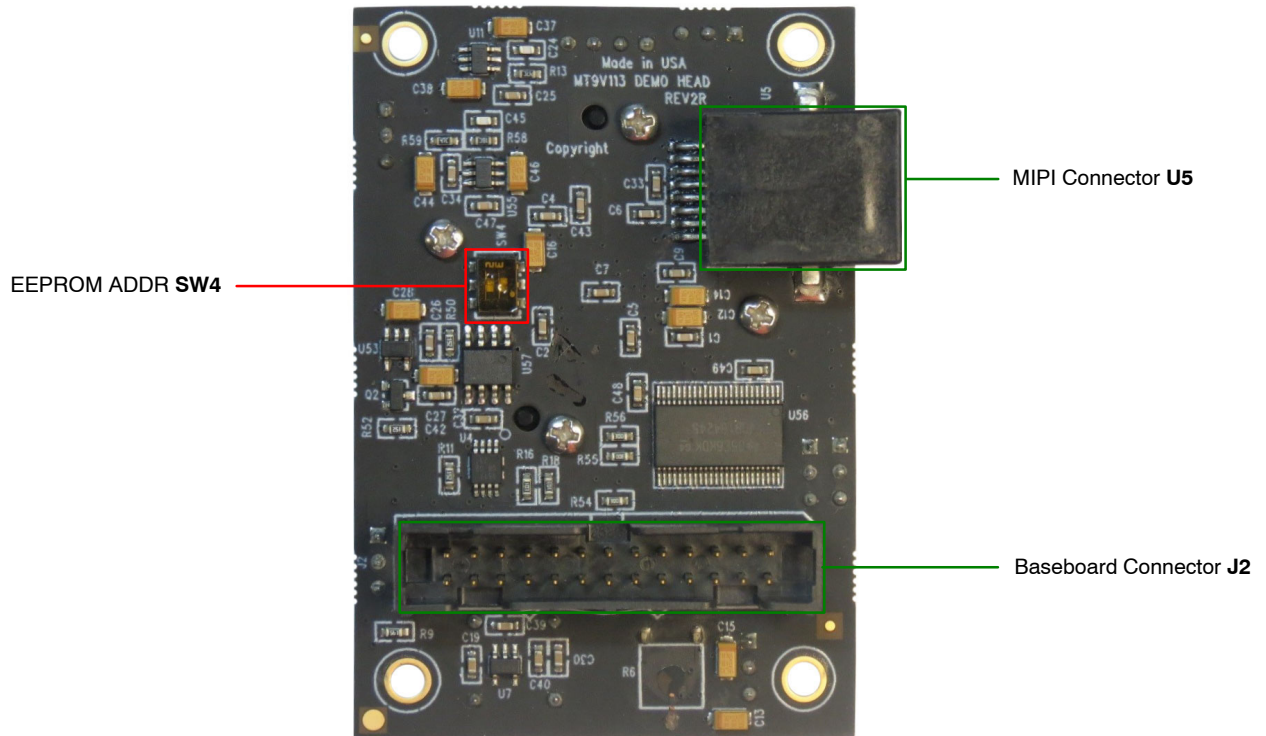


Figure 4. Bottom View of the Evaluation Board – Connectors

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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.

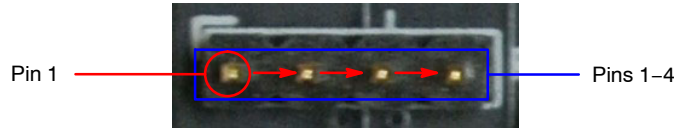


Figure 5. Pin Locations for a Single Jumper. Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

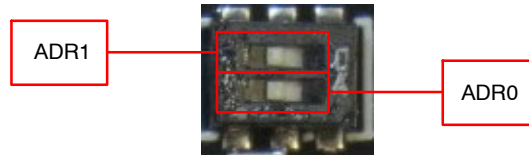


Figure 6. Address Switch Locations in their Default Positions. The first Switch(ADR0) and the second Switch (ADR1) of SW3 are set to ON

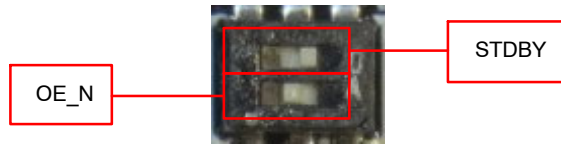


Figure 7. Switch Descriptions of Switch SW4 in their Default Positions. The first Switch (STDBY) is Set OFF while the Second Switch (OE_N) is Set to ON

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

| Jumper/Header No. | Jumper/Header Name | Pins | Description |
|-------------------|--------------------|----------------|--|
| JP1 | FLASH | Open (Default) | Connects to external flash |
| J4 | GPIO[1:0] | Open (Default) | Connects to GPIO signals |
| J9 | +VDDIO | 1-2 (Default) | Connects to on-board +3V3_VDD power supply |
| | | Open | External power supply connection |
| J10 | +3V3_VAA | 1-2 (Default) | Connects to on-board +3V3_VAA power supply |
| | | Open | External power supply connection |
| J13 | +1V8_VDD | 1-2 (Default) | Connects to on-board +1V8_VDD power supply |
| | | Open | External power supply connection |
| J14 | ATEST | Open (Default) | For test/debug |
| SW1 | RESET | N/A | When pushed, 400 ms reset signal will be sent to MT9V113 |

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Table 1. JUMPERS AND HEADERS (continued)

| Jumper/Header No. | Jumper/Header Name | Pins | Description |
|-------------------|--------------------|----------------------------|--------------------------------------|
| SW1 | STDBY/SADDR | STDBY Off (Default) | Normal Mode |
| | | STDBY On | Standby State |
| | | SADDR Off (Default) | I ² C address set to 0x20 |
| | | SADDR On | I ² C address set to 0x30 |
| SW4 | 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 |
| SW5 | ON_LED | On (Default) | Connects LED indicator to +Vdd_BUS |
| | | Off | Turn off LED indicator |

Interfacing to ON Semiconductor Demo 2X Baseboard

The ON Semiconductor Demo 2X baseboard has a similar 26-pin connector which mates with J2 of the

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

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