MT9V113PACSTCH-GEVB

MT9V113 Evaluation Board User's Manual

ON Semiconductor®

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EVAL BOARD USER'S MANUAL

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

Figure 1. MT9V113 Evaluation Board

Block Diagram

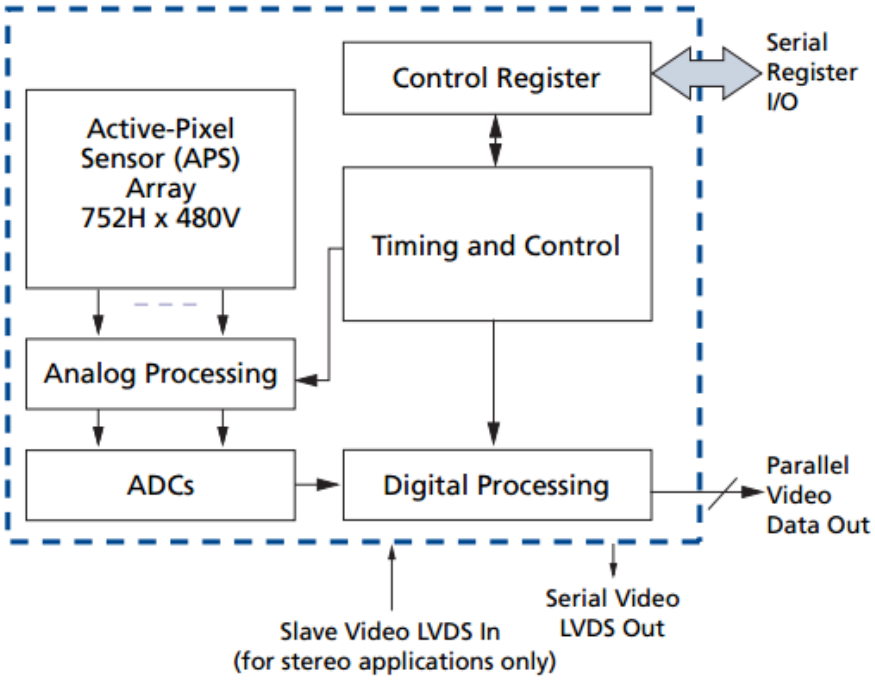

Figure 2. Block Diagram of MT9V113PACSTCH−GEVB

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Top View

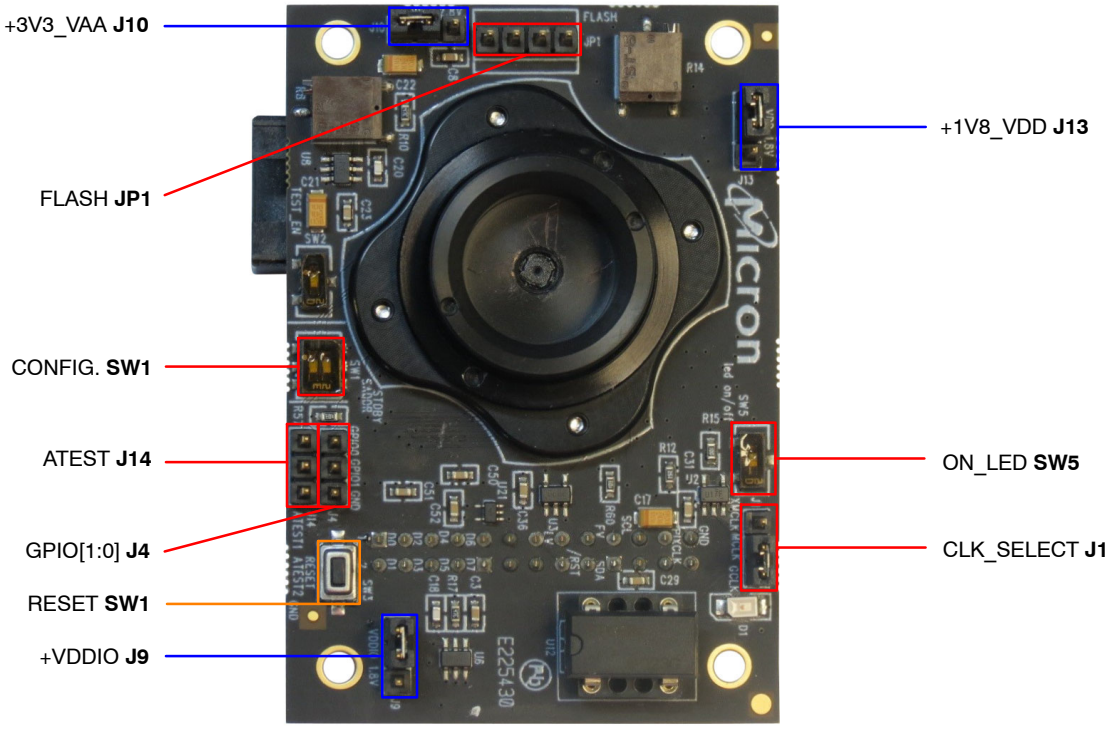

Figure 3. Top View of Evaluation Board

Bottom View

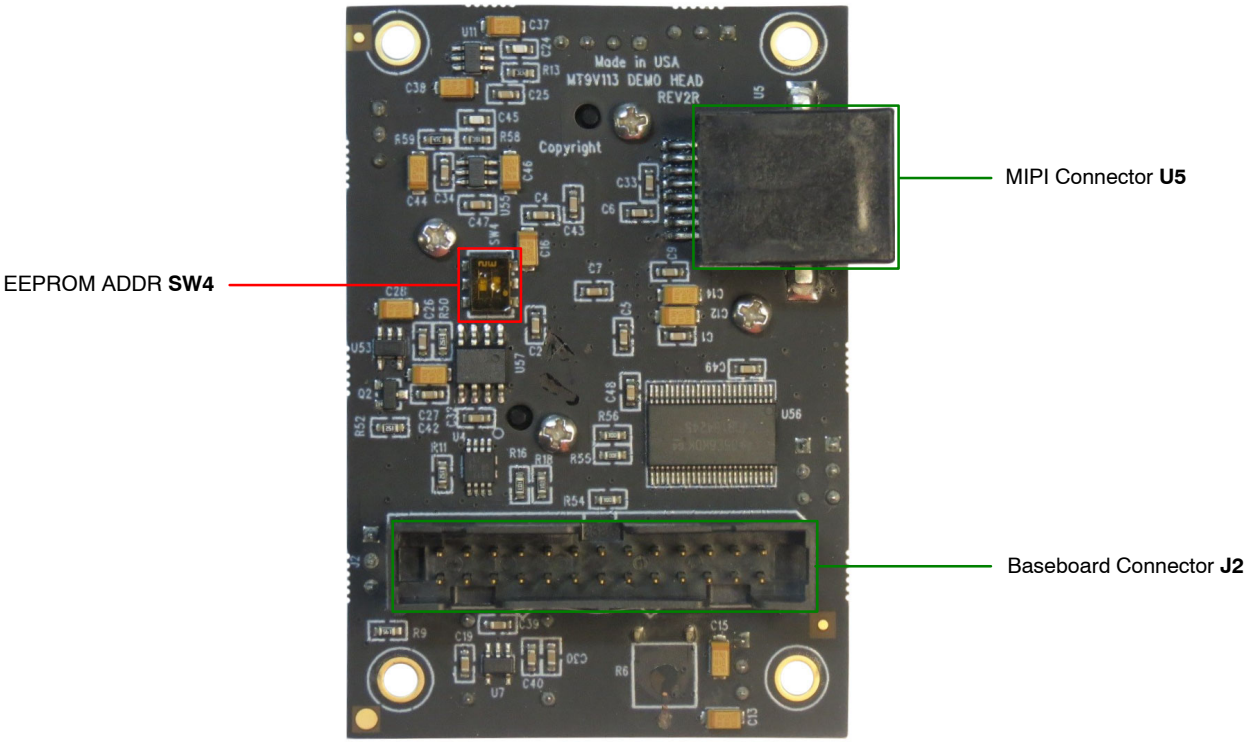

Figure 4. Bottom View of the Evaluation Board − Connectors

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.

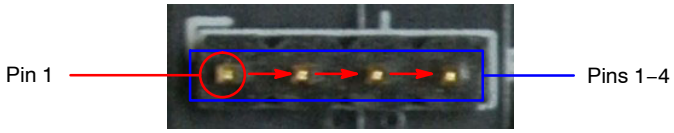

Figure 5. Pin Locations for a Single Jumper. Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

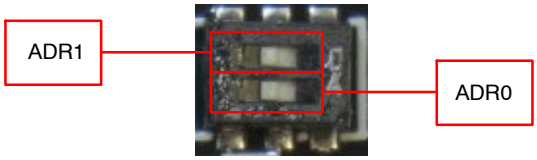

Figure 6. Address Switch Locations in their Default Positions. The first Switch(ADR0) and the second Switch (ADR1) of SW3 are set to ON

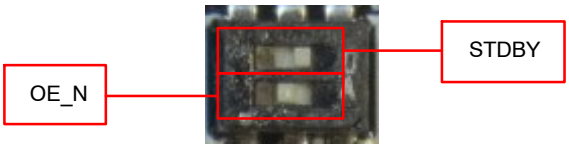

Figure 7. Switch Descriptions od Switch SW4 in their Default Positions.The first Switch (STDBY) is Set OFF while the Second Switch (OE_N) is Set to ON

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

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^2C address set to 0x20
		SADDR On	I^2C 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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