MT9TV034C12STMH-GEVB

MT9V034 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 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
- Serial LVDS Interface
- ROHS Compliant

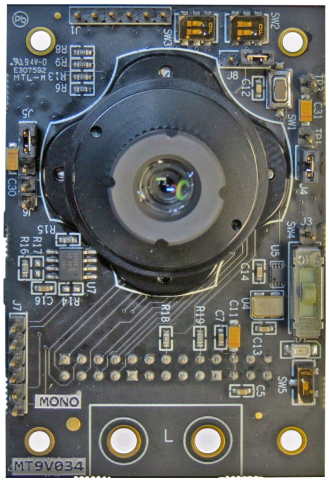

Figure 1. MT9V034 Evaluation Board

Block Diagram

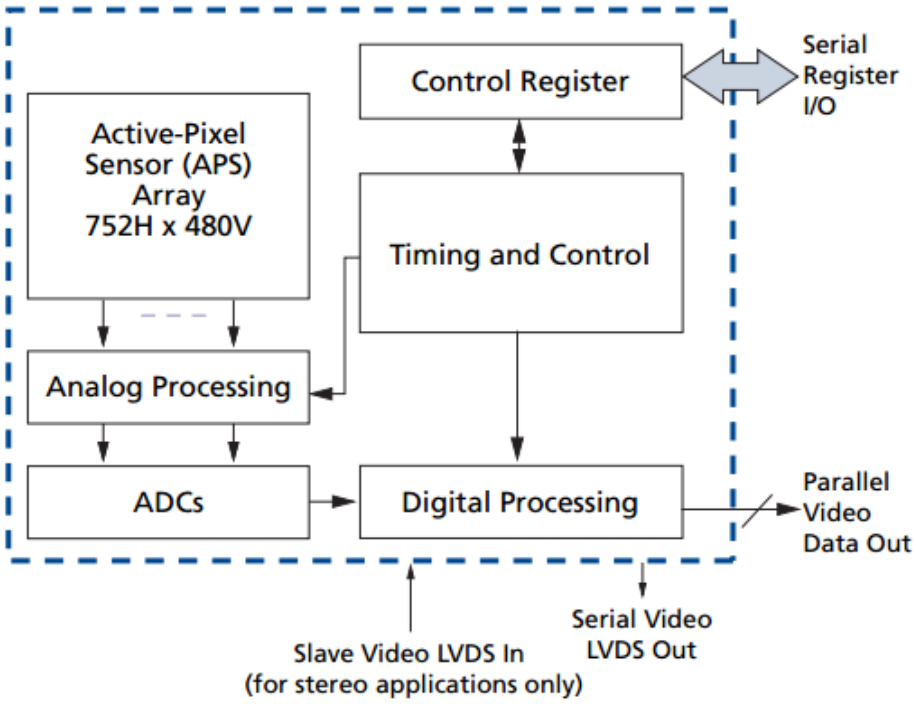

Figure 2. Block Diagram of MT9V034C12STMH−GEVB

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Top View

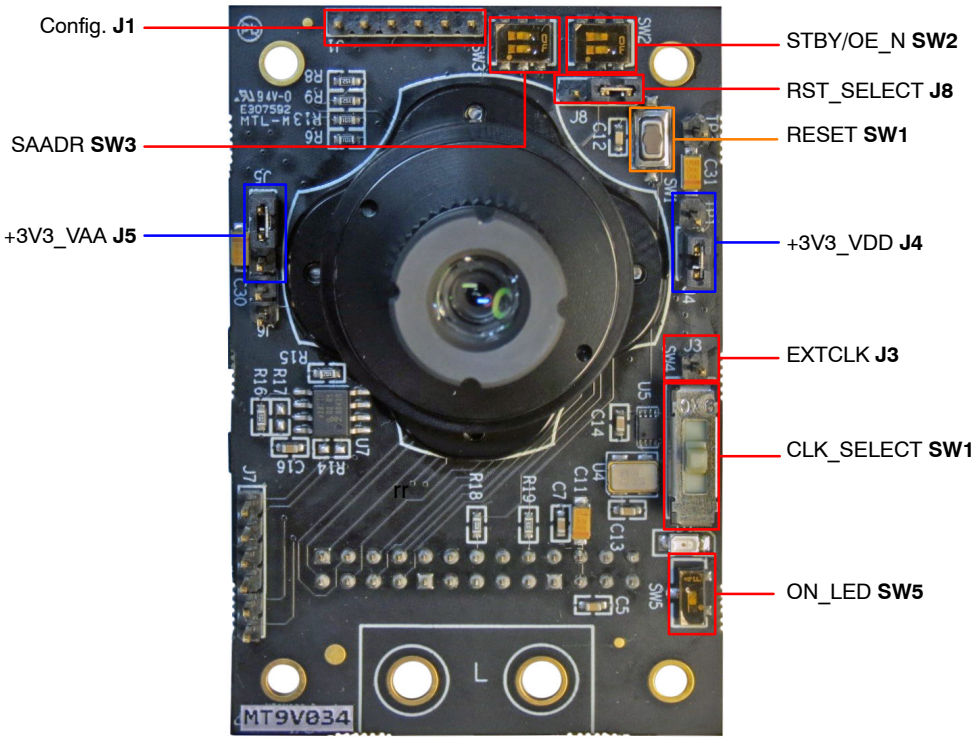

Figure 3. Top View of Evaluation Board − Default Jumpers

Bottom View

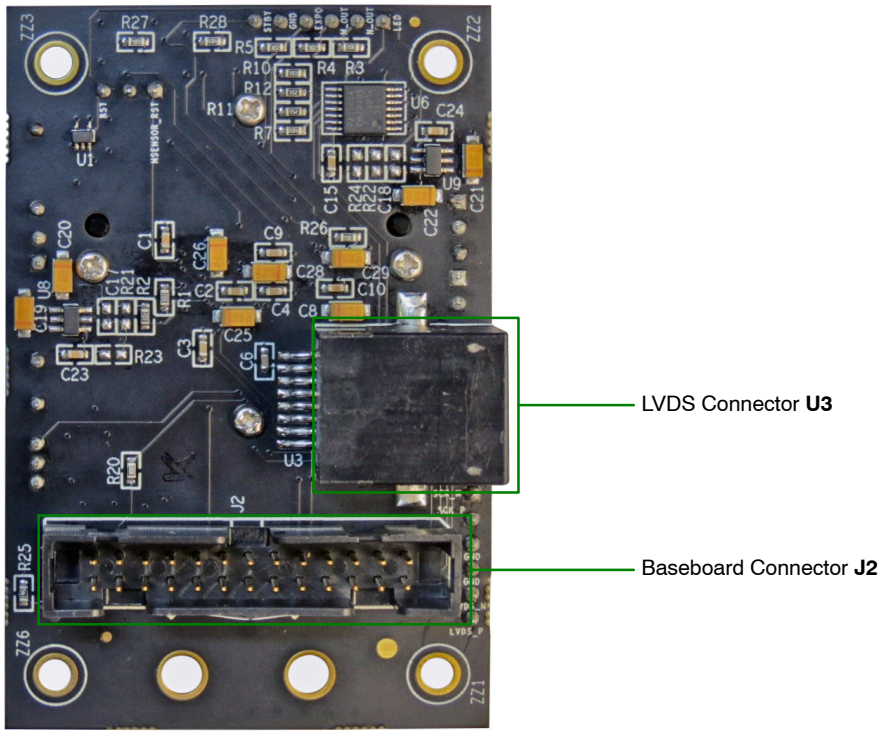

Figure 4. Bottom View of the Evaluation Board − Connector

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.

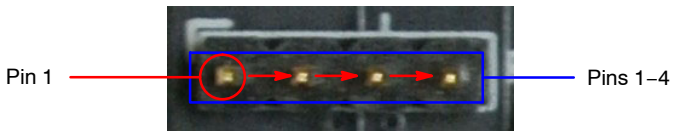

Figure 5. Pin Locations for a Single Jumper.
Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

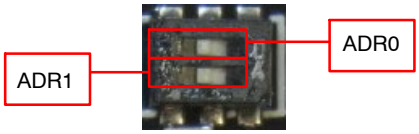

Figure 6. Address Switch Locations in their Default Positions.
The First Switch (ADR0) and the Second Switch (ADR1) of SW3 are Set to ON

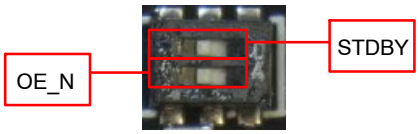

Figure 7. Switch Descriptions of Switch SW4 in their Default Positions.
The First Switch (STDBY) is Set to OFF While the Second Switch (OE_N) is Set to ON

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

Jumper/Header No.	Jumper/Header Name	Pins	Description
J1	Config.	Open (Default)	Connects to various sensor's settings
J3	EXTCLK	Open (Default)	For connection to external clock
J4	+3V3_VDD	1−2 (Default)	Connects to on-board +3V3_VDD power supply
		Open	External power supply connection
J5	+3V3_VAA	1−2 (Default)	Connects to on-board +3V3_VAA power supply
		Open	External power supply connection
J8	RST_SELECT	2−3 (Default)	Reset set to SW1
SW1	RESET	N/A	When pushed, 400 ms reset signal will be sent to MT9V032
SW2	STDBY/OE_N	STDBY Off (Default)	EEPROM Address set to 0xA8
		STDBY On	EEPROM Address set to 0xAC
		OE_N On (Default)	EEPROM Address set to 0xA4
		OE_N Off	EEPROM Address set to 0xA0

Table 1. JUMPERS AND HEADERS (continued)

Jumper/Header No.	Jumper/Header Name	Pins	Description
SW3	SAADR	ADR1 On, ADR0 On (Default)	Address set to 0xB8
		ADR1 On, ADR0 Off	Address set to 0xB0
		ADR1 Off, ADR0 On	Address set to 0x98
		ADR1 Off, ADR0 Off	Address set to 0x90
SW4	CLK_SELECT	Position 1 (Default)	Connects to on-board 27MHz oscillator
		Position 2	Connects to on-board 27MHz oscillator
		Position 3	Connects to EXTCLK from J3
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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