MT9V127IA3XTCH-GEVB

MT9V127 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
- ROHS Compliant

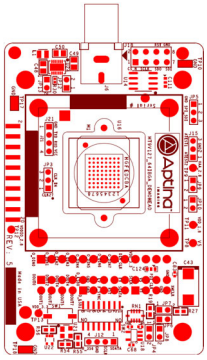


Figure 1. MT9V127 Evaluation Board

Block Diagram

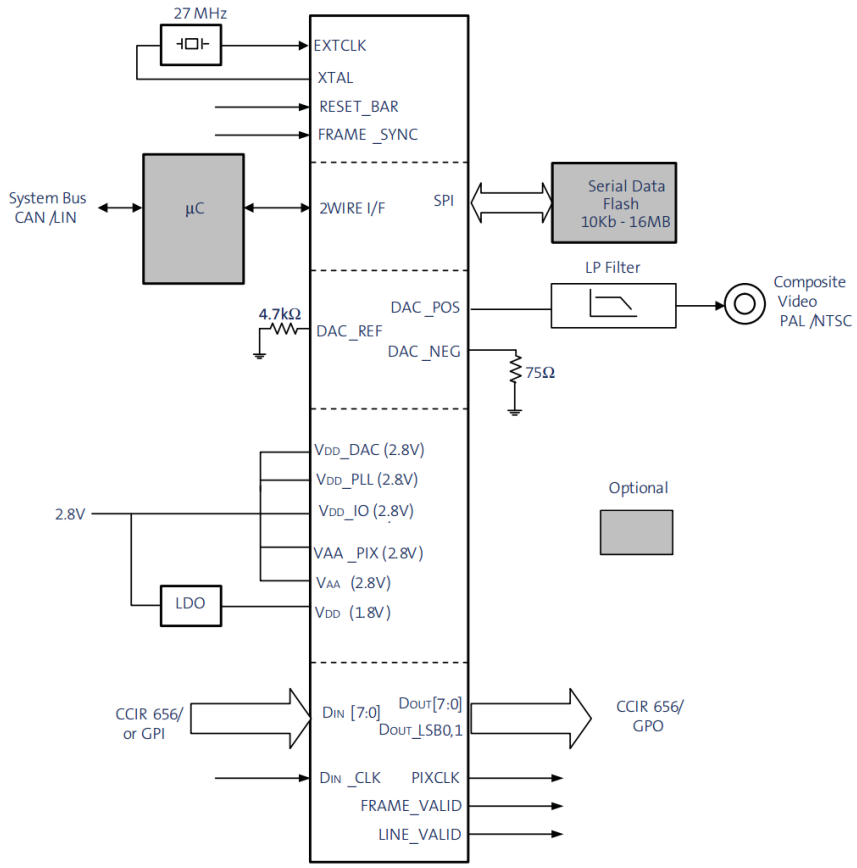


Figure 2. Block Diagram of MT9V127IA3XTCH–GEVB

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Top View

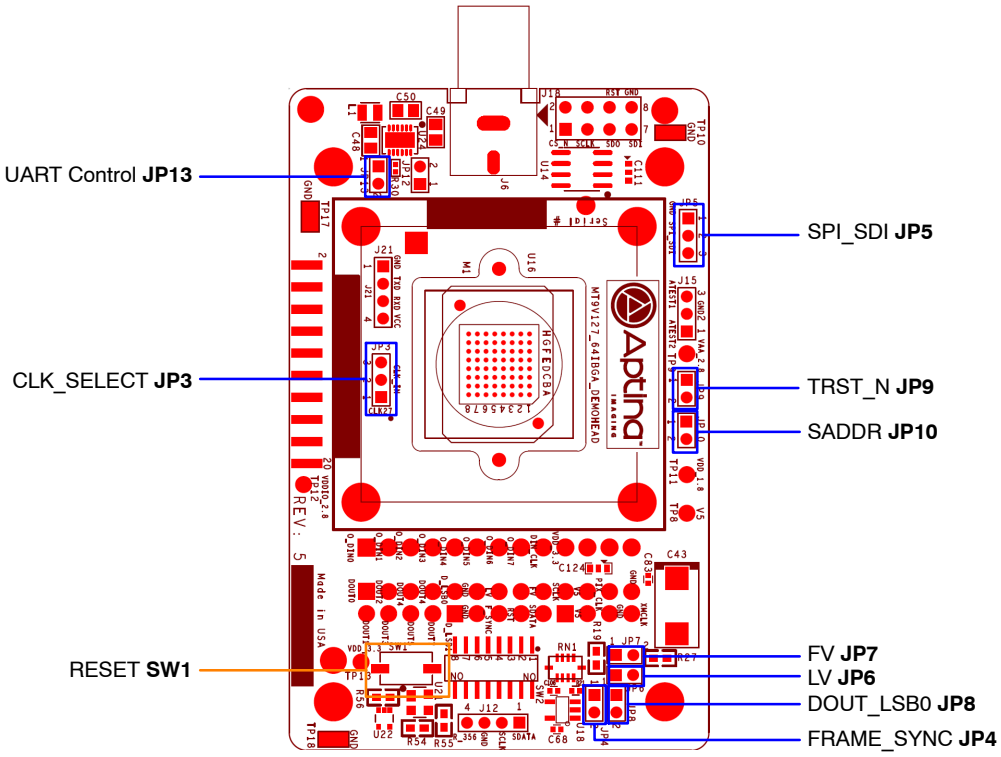


Figure 3. Top View of Evaluation Board − Jumpers

Bottom View

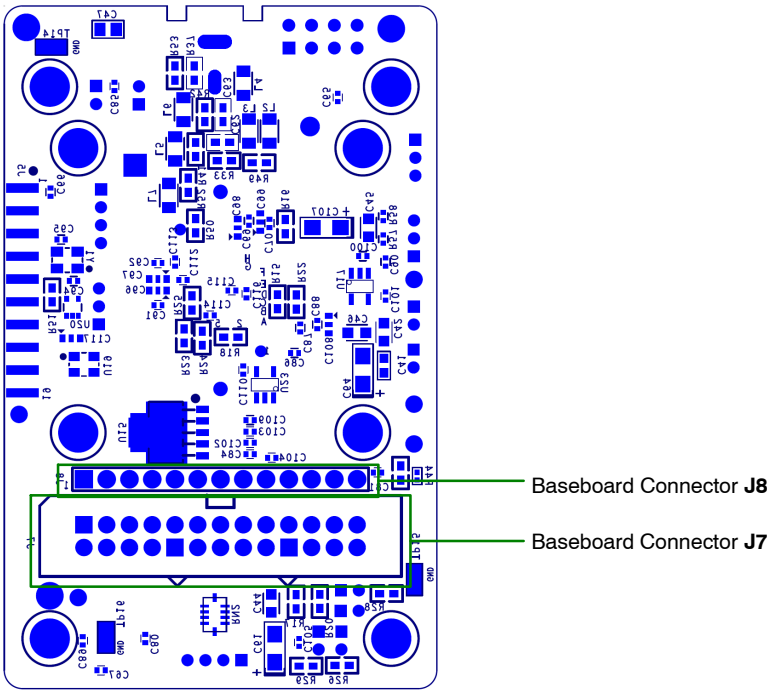


Figure 4. Bottom View of the Evaluation Board − Connector

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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.

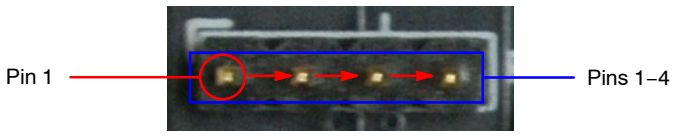


Figure 5. Pin Locations for a Single Jumper.
Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

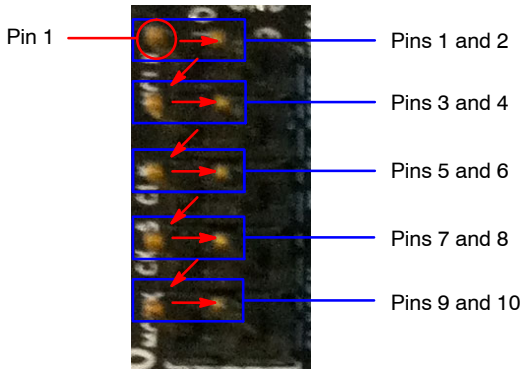


Figure 6. Pin Locations and Assignments of Grouped Jumpers.
Pin 1 is Located at the Top-Left Corner and Increases in a Zigzag Fashion Shown in the Picture

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

Jumper/Header No.	Jumper/Header Name	Pins	Description
JP3	CLK_SELECT	1−2 (Default)	Connect to on-board oscillator
		2−3	Connect to crystal oscillator
JP4	FRAME_SYNC	1−2 (Default)	Normal operation
		Open	Connection to external trigger
JP5	SPI_SDI	2−3 (Default)	Flash Mode
		1−2	Host Mode
		Open	Auto-Configured Mode
JP6	LV	1−2 (Default)	Video output does not have pedestal
		Open	Video output has pedestal
JP7	FV	1−2 (Default)	Video output is not horizontally flipped
		Open	Video output is horizontally flipped
JP8	DOUT_LSB0	1−2 (Default)	NTSC composite video output mode
		Open	PAL composite video output mode
JP9	TRST_N	1−2 (Default)	Normal Mode
		Open	External connection for Test Mode
JP10	SADDR	1−2 (Default)	GND
		Open	External connection to I^2C address control

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Table 1. JUMPERS AND HEADERS (continued)

Jumper/Header No.	Jumper/Header Name	Pins	Description
JP13	UART Control	Open (Default)	UART Shutdown
		1−2	UART Active
SW1	RESET	N/A	When pushed, 240 ms reset signal will be sent to MT9V127

Interfacing to ON Semiconductor Demo 2X Baseboard

The ON Semiconductor Demo 2X baseboard has a similar 26-pin connector and 13 pin connector which mate with J7 and J8 of the headboard. The four mounting holes secure the baseboard and the headboard with spacers and screws.

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