

AR0130CS Evaluation Board User's Manual



EVAL BOARD USER'S MANUAL

The evaluation boards are designed to demonstrate the features of image sensors products from ON Semiconductor. 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.

- 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. AR0130CS Evaluation Board

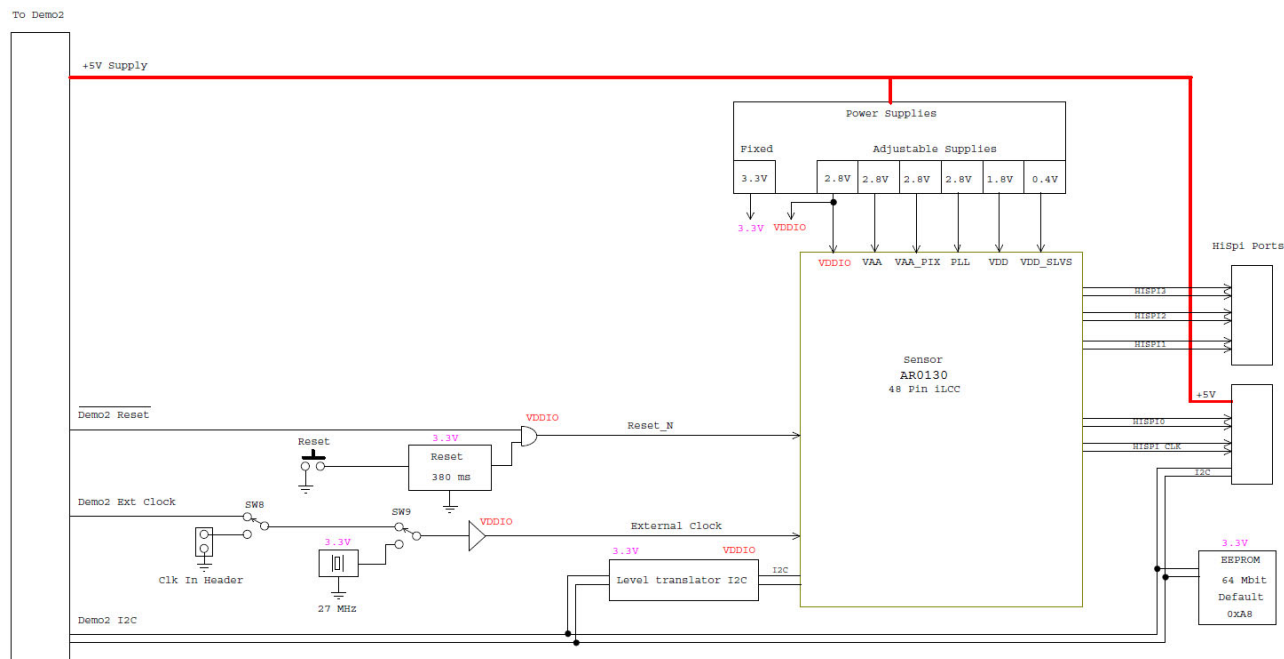


Figure 2. Block Diagram of AR0130CSSM00SPCAH-GEVB

AR0130CSSM00SPCAH-GEVB

Top View

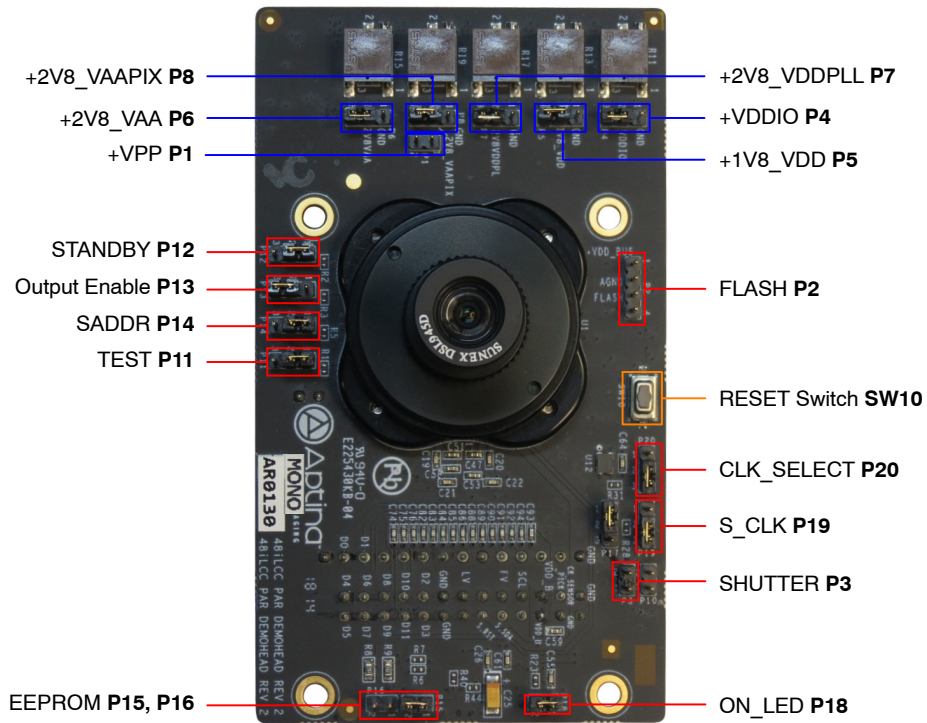


Figure 3. Top View of the Board – Default Jumpers

Bottom View

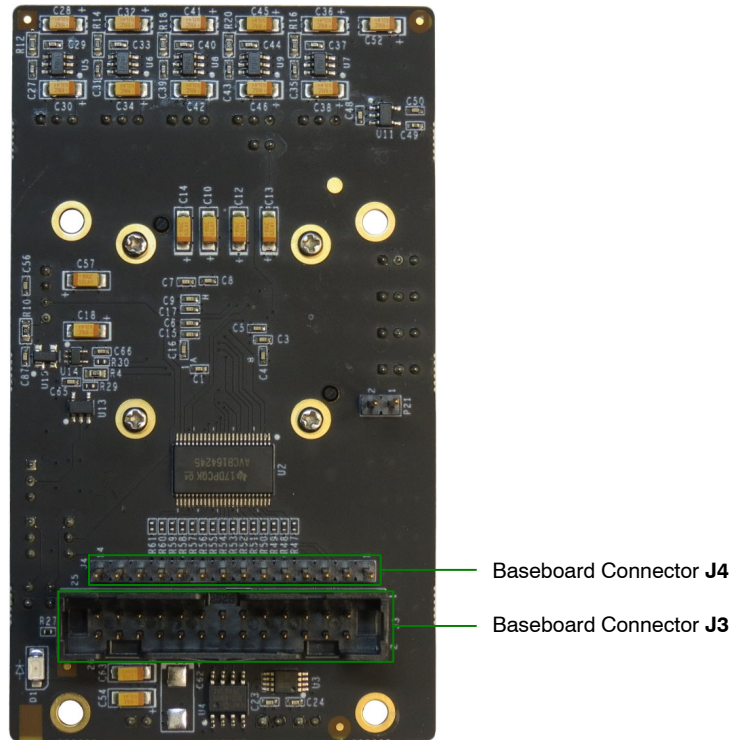


Figure 4. Bottom View of the Board – Connectors

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.

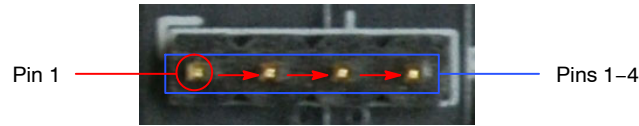


Figure 5. Pin Locations for a Single Jumper. Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

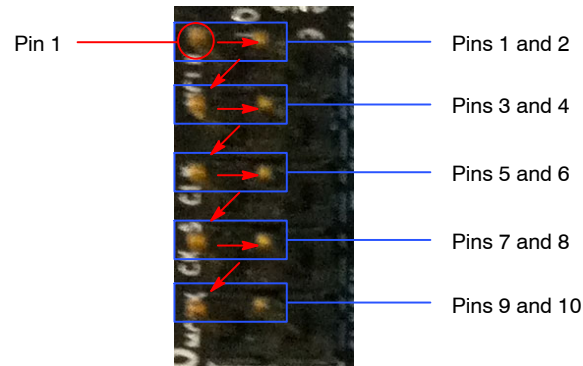


Figure 6. Pin Locations and Assignments of Grouped Jumpers. Pin 1 is Located at the Top-Left Corner and Increases in a Zigzag Fashion Shown in the Picture

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

Jumper/Header No.	Jumper/Header Name	Pins	Description
P1	VPP	Open (Default)	For Connection to +VPP Power Supply
P2	ATEST	Open (Default)	For Testing
P3	SADDR	2-3	I ² C Address Set to 0x30
		1-2	I ² C Address Set to 0x20
P4	TEST	Closed (Default)	Normal Operation
		Open	Test Mode
P5	Shutter/Trigger	Open	For Connection to External Shutter/Trigger
P6	STANDBY	2-3 (Default)	Normal Operation
		1-2	Standby Mode
P7	FLASH	Open (Default)	For Connection to External Flash
P8	O_EN	1-2 (Default)	Normal Operation
		2-3	Parallel Data Output Disabled
P9	VDDIO	1-2 (Default)	1.8 V Operation of Sensor
		2-3	2.8 V Operation of Sensor
P10	Clock Select	1-3 (Default)	Internal Clock
		3-5	Demo 2X Clock
		3-4	External Clock
P11	Master Clock	1-2, 3-4 (Default)	Demo 2X IIC
		2-3	External IIC

Table 1. JUMPERS AND HEADERS (continued)

Jumper/Header No.	Jumper/Header Name	Pins	Description
P12	EEPROM Addr. Sel	3-4 Open & 1-2 Closed (Default)	EEPROM Address Set to 0xA8
		3-4 Open & 1-2 Closed	EEPROM Address Set to 0xAC
		3-4 Open & 1-2 Closed	EEPROM Address Set to 0xA4
		3-4 Open & 1-2 Closed	EEPROM Address Set to 0xA0

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 J3

and J4 of the headboard. The four mounting holes secure the baseboard and the headboard with spacers and screws.

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