AR0134CSSC00SPCAH-GEVB

AR0134CS 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 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.

Features

- Clock Input
  - Default – 27 MHz Crystal Oscillator
  - Optional Demo 2X Controlled MClk
- Two-wire Serial Interface
  - Selectable Base Address
- Parallel Interface
- HiSPi (High Speed Serial Pixel) Interface
- ROHS Compliant

Figure 1. AR0134CS Evaluation Board

Block Diagram

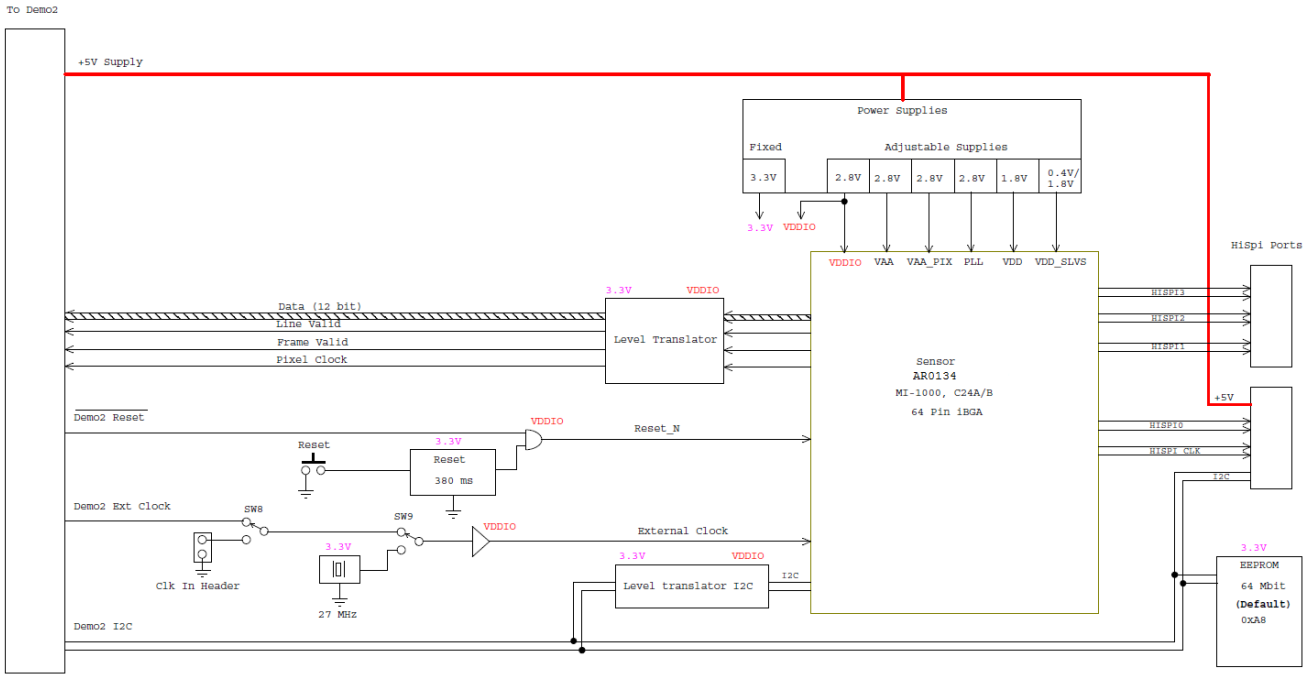

Figure 2. Block Diagram of AR0134CSSC00SPCAH−GEVB

Top View

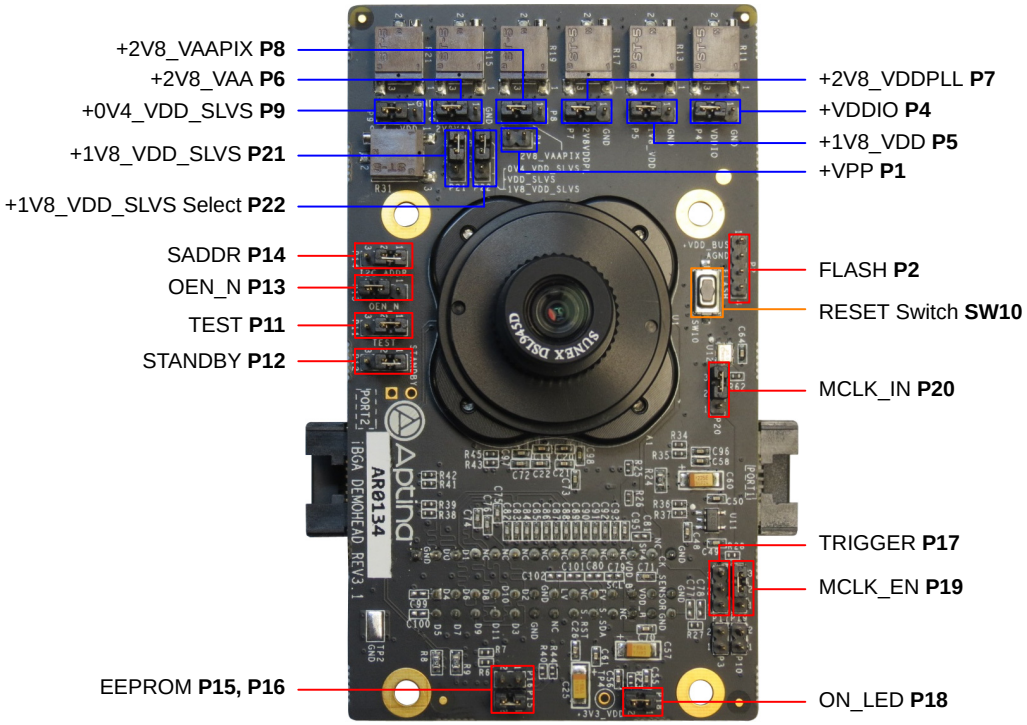

Figure 3. Top View of the Board − Default Jumpers

Bottom View

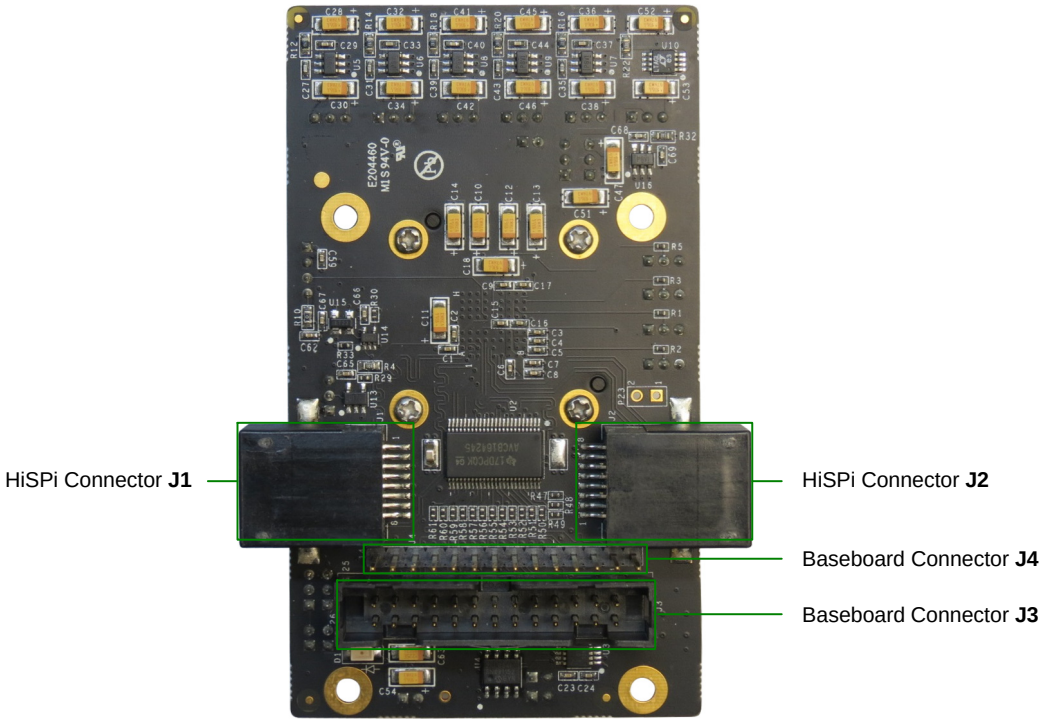

Figure 4. Bottom View of the Board − Connectors

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.

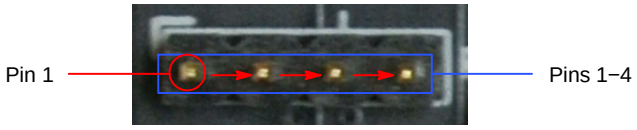

Figure 5. Pin Locations for a Single Jumper. Pin 1 is Located at the Leftmost Side and Increases as it Moves to the Right

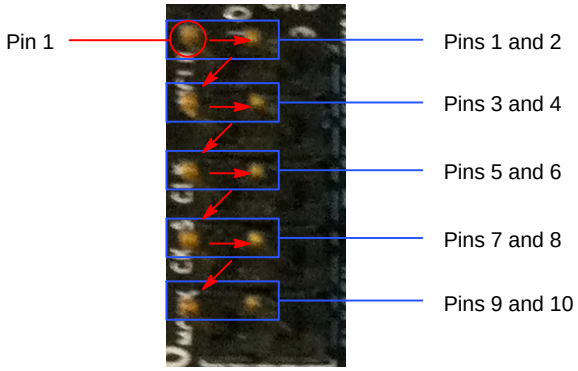

Figure 6. Pin Locations and Assignments of Grouped Jumpers. Pin 1 is Located at the Top-Left Corner and Increases in a Zigzag Fashion Shown in the Picture

Jumper/Header Functions & Default Positions

Table 1. JUMPERS AND HEADERS

Jumper/Header No.	Jumper/Header Name	Pins	Description
P1	+VPP	2	VPP OTPM
P2	FLASH	1	+VDD_BUS
		2	GND
		3	FLASH
		4	+3V3_VDD
P4	+VDDIO	2−3 (Default)	Connects to On-board +VDDIO Power Supply
		1−2	External Power Supply Connection
P5	+1V8_VDD	2−3 (Default)	Connects to On-board +1V8_VDD Power Supply
		1−2	External Power Supply Connection
P6	+2V8_VAA	2−3 (Default)	Connects to On-board +2V8_VAA Power Supply
		1−2	External Power Supply Connection
P7	+2V8_VDDPLL	2−3 (Default)	Connects to On-board +2V8_VDDPLL Power Supply
		1−2	External Power Supply Connection
P8	+2V8_VAAPIX	2−3 (Default)	Connects to On-board +2V8_VAAPIX Power Supply
		1−2	External Power Supply Connection
P9	+0V4_VDD_SLVS	2−3 (Default)	Connects to On-board +0V4_VDD_SLVS Power Supply
		1−2	External Power Supply Connection

Table 1. JUMPERS AND HEADERS (continued)

Jumper/Header No.	Jumper/Header Name	Pins	Description
P11	TEST	1−2 (Default)	Set to Normal Mode
		2−3	Set to Test Mode
P12	STANDBY	1−2 (Default)	Normal Mode
		2−3	Standby Mode
P13	OEN_N	2−3 (Default)	Output Enable
		1−2	Output Disable
P14	SADDR	1−2 (Default)	I^2C Address Set to 0x20
		2−3	I^2C Address Set to 0x30
P13	FLASH	1	+5V0
		2	GND
		3	FLASH
		4	+3V3
P8	STANDBY	2−3 (Default)	Normal Mode
		1−2	Standby Mode
P14	Analog Test	1−2 (Default)	ATEST → GND
P17	TRIGGER	2	TRIGGER
P18	ON_LED	1−2 (Default)	Connects to On-board LED to Indicate Power On
P19	MCLK_EN	2−3 (Default)	Demo2X Clock Input Enable
		1−2	Demo2X Clock Input Disable
P20	MCLK_IN	2−3 (Default)	On-board Oscillator
		1−2	Demo2X Clock Input
P21	+1V8_VDD_SLVS	2−3 (Default)	Connects to On-board +1V8_VDD_SLVS Power Supply
		1−2	External Power Supply Connection
P21	+1V8_VDD_SLVS	2−3 (Default)	+VDD_SLVS Connects to +0V4_VDD_SLVS (SLVS Mode)
		1−2	+VDD_SLVS Connects to +1V8_VDD_SLVS (Hi-VCM Mode)
SW1	RESET	N/A	When Pushed, 240 ms Reset Signal will be Sent to AR0134CS

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.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:
Literature Distribution Center for ON Semiconductor
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