AA9620
Sensor Module

General Description

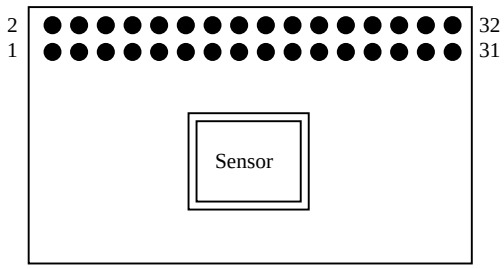
This is a series of digital sensor module using various OmniVision's Mega-Pixel CMOS image sensor.

The digital video port provides 10bit RGB signals. All camera functions, such as exposure, gamma, gain, white balance, color matrix, windowing, are programmable through SCCB interface.

The EV Board EVU20 is provided for interfacing the AA module

Features:

- 1.3Meg CMOS image sensor, OV9620
- sensor array 1280x1024 pixels
- lens format: 1/2"
- Small size : 40 x 34 mm
- Built-in Len (Optional)
- 10Bit RGB raw data output
- Progressive Scan
- Serial Camera Control Bus interface
- Single 3.3V operation
- Low power consumption (<120mW)



PCB Layout (Top view)

Pin Description

1~8	D2-D9	Digital output Bus.
9	PWDN	Power down mode
10	RST	Reset
11	SIOD	Serial data
12	NC	
13	SIOC	Serial clock input
14	HREF	Horizontal window reference output
15	AGND	Analog Ground
16	VSYN	Vertical Sync output
17	AGND	Analog Ground
18	PCLK	Pixel clock output
19	EXCLK	External clock input
20	VCC	Power Supply 3.3VDC
21	AGND	Analog Ground
22	VCC	Power Supply 3.3VDC
23~24	NC	
25~26	D0-D1	Digital output bus
27-30	NC	
31~32	GND	Common ground

Lens Information

Focal length	9.2mm
F No	3.2
Distortion	<1.85%
Rel Illuminance	65%
Focus	2M to infinity
FOV	50 deg diagonal
IR cut filter	650nm

Module Specification

Dimension	41x34mm
Header Pin	16pin x 2 row
Pin pitch	2.54mm
Total height from pcb	17mm

Note: Please refer to the data sheet of OV sensor for detail specification and features.

Application Note for AA9620

1. Using external clock

Remove the crystal, C1, C2 and R2
Short R3 or add a 0 Ohm to R3

2. Using Hsyn or Href

when using Hsyn, solder 0 Ohm to R11
when using Href, solder 0 Ohm to R14