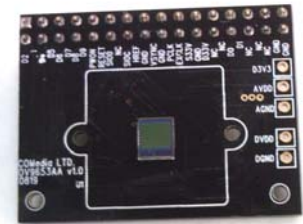




**General Description**

This is a series of digital sensor module using various OmniVision' CMOS image sensor.

The digital video port provides full-frame, sub-sampled or windowed 8/10bit images in a wide range of formats, control thru the serial camera control bus.

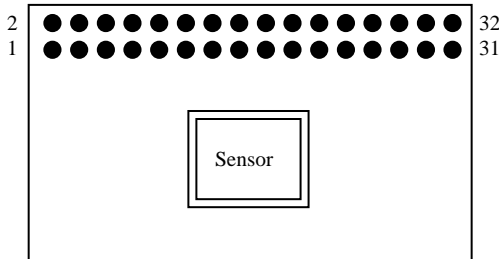


**Features:**

- Mega pixel CMOS image sensor, OV9653
- Sensor array 1300x1028pixels
- lens format: 1/4"
- support SXGA,VGA,QVGA,CIF,QCIF
- VGA 30fps, QVGA 60fps, QCIF 120fps
- Raw RGB, GRB422, YUV422 format
- Small size : 41 x 31 mm
- Built-in Len (Optional)
- Progressive Scan
- Serial Camera Control Bus interface
- Single 3.3V operation
- Low power consumption (<120mW)

**Pin Description**

|       |       |                                    |
|-------|-------|------------------------------------|
| 1~8   | D2-D9 | Digital output Bus.                |
| 9     | PWDN  | Power down mode, active high       |
| 10    | RST   | Reset, active high                 |
| 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                      |



PCB Layout (Top view)

**Lens Information**

|               |                 |
|---------------|-----------------|
| Focal length  | 6.5mm           |
| F No          | 3.2             |
| Distortion    | <3%             |
| Focus         | 2M to infinity  |
| FOV           | 41 deg diagonal |
| IR cut filter | 650nm           |

**Module Specification**

|                       |               |
|-----------------------|---------------|
| Dimension             | 41x31mm       |
| Header Pin            | 16pin x 2 row |
| Pin pitch             | 2.54mm        |
| Total height from pcb | 13mm          |

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