

# MuC204 (NTSC) Color Camera Module w/LED Control

This is a family of products based on the most advance CMOS mixed signal technology. It integrates image array, signal processing, timing and control circuitry, all on a single chip. It is ideal for applications requiring a small footprint, low power and low cost.

## Features:

Small size : 8x28 mm  
 Resolution: 100Kpixels  
 Wide operation voltage (3.8 - 6V)  
 Built in white LED x3pcs  
 LED ON/OFF controllable  
 Built in lens with IR cut filter  
 Low power consumption (<300mW typ.)  
 Direct connect to standard video monitor



## Application Example

- Camera for ducting inspection
- Pen camera
- Toys

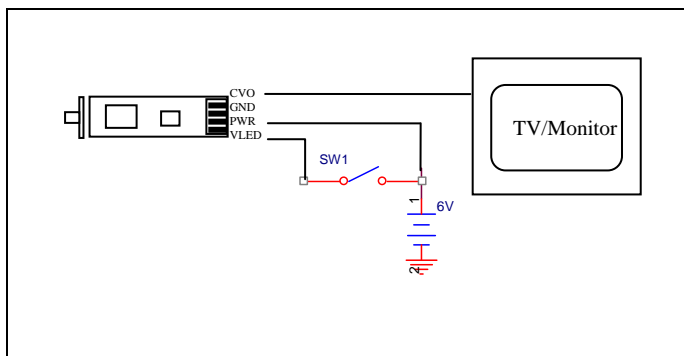
## Pin Description

1. CVO Composite Video Output  
Direct connect to TV/Monitor
2. GND Common Ground for power and video
3. PWR Power Supply 3.8-6V DC
4. VLED Power for LED, range from 3.8-6V, built-in 120Ohm resistor in Series. It can be ON-OFF or dimming control externally.

## Specification

|                      |  |
|----------------------|--|
| Imager               | CMOS imager sensor OV6920                        |
| Optical Format       | 1/18"  |
| Shutter              | 1/60 to 1/5.7 usec                               |
| Video Output         | Composite video (75Ω)                            |
| Picture Element      | 320x240 pixel                                    |
| Effective image area | 820x625um  |
| S/N Ratio            | 42dB   |
| Fixed pattern noise  | <0.03% Vp-p                                      |
| Dynamic range        | 42dB   |
| Operation Voltage    | 3.8-6 VDC  |
| Connector            | Mini 4 pin connector of 1mm pitch                |
| Connection           | PWR, Video, GND, VLED                            |
| Lens                 | F2.8, EFL:0.96mm with IR cut                     |
| FOV                  | 55deg  |
| Dimension            | Sensor board: 8mm diameter<br>Main board: 8x18mm |

## Connection Diagram



## Electrical Characteristic at 25C

|                       | Min | Typ | Max | Unit  |
|-----------------------|-----|-----|-----|-------|
| Operation Voltage     | 3.8 | 4.5 | 6   | V     |
| Operation Current     | 30  | 35  | 50  | mA    |
| Operation Temperature | 0   |     | 45  | deg C |

Note:

1. Operation current may be varied by the brightness of image.
2. Video quality may be affected by the connection cable, its length and characteristics.