



## WM6232: High Integration Coaxial HD CMOS ISP

WM6232 is a cost effective and high integration CMOS sensor ISP (Image Signal Processor) chip for security camera application. The integrated high quality ISP including 2A (AE/AWB), 2DNR,3DNR and other enhancement functions deliver stable and high quality images for various camera applications. WM6232 supports up to 1080P@30fps HDcctv analog video output and CVBS analog video output. Down-stream audio data over video transmitted to DVR device enable remote voice capture.

WM6232 integrates video driver and comparator to achieve low BOM cost. The embedded powerful CPU enables flexible software application.

Features					
<b>CPU</b>	<ul style="list-style-type: none"> <li>● 32-bit RISC-V</li> </ul>				
<b>VI</b>	<ul style="list-style-type: none"> <li>● DVP@10-bit</li> </ul>				
<b>VO</b>	<ul style="list-style-type: none"> <li>● Analog video output</li> <li>● Supports HDcctv 1M/2M RT analog video output</li> <li>● Supports CVBS (960H) analog video output</li> </ul>				
<b>ISP</b>	<ul style="list-style-type: none"> <li>● 2DNR, 3DNR</li> <li>● 2A (AE, AWE)</li> <li>● BLC</li> <li>● DPC</li> <li>● DRC</li> <li>● GIC</li> <li>● LSC</li> <li>● CCM</li> <li>● Edge enhanced process</li> <li>● Reduced frame rate</li> </ul>				
<b>Audio</b>	<ul style="list-style-type: none"> <li>● Supports down-stream audio data over video to remote DVR device</li> </ul>				
<b>Video and Graphic Processing</b>	<ul style="list-style-type: none"> <li>● Scaling and crop</li> <li>● Mask and OSD</li> </ul>				
Peripherals					
<b>Video Interfaces</b>	<table border="0"> <tr> <td>VI</td> <td>● DVP@10-bit</td> </tr> <tr> <td>VO</td> <td>● Analog video output</td> </tr> </table>	VI	● DVP@10-bit	VO	● Analog video output
VI	● DVP@10-bit				
VO	● Analog video output				
<b>Other Interfaces</b>	<ul style="list-style-type: none"> <li>● UART</li> <li>● I2C</li> </ul>				

- SPI
- PWM
- ADC
- GPIO
- I2S

## Startup

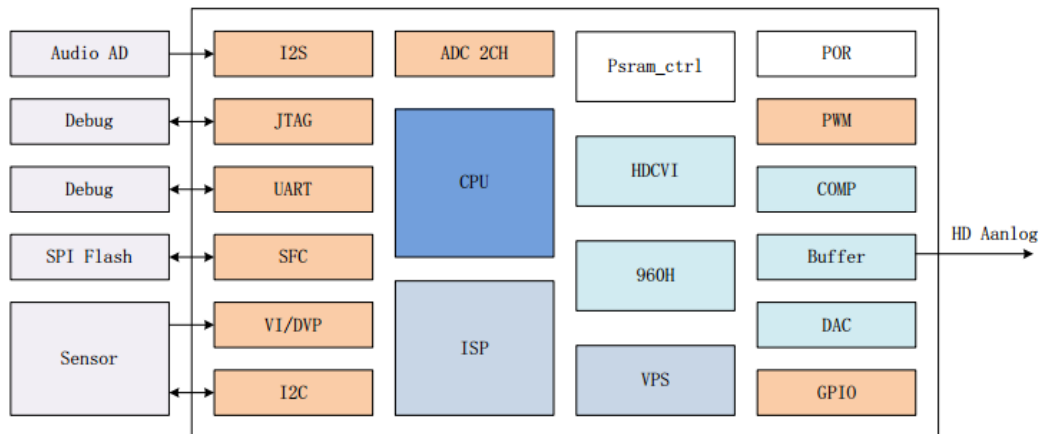
- Boot from SPI Flash

## Physical Specs

- Operating Voltage**
- 1.1V core voltage
  - 3.3V I/O voltage
  - 3.3V analog voltage
  - 1.8V/3.3V sensor voltage

- Package**
- 6 mm × 6 mm QFN60

## WM6232 Block Diagram



## CMOS Camera Solution

