

# OAH0428 medical video processor product brief



available in  
a lead-free  
package

## Compact and Flexible ASIC for Medical Applications

OmniVision's OAH0428 is a single companion chip solution that provides an integrated analog to digital conversion and limited ISP functionality including Auto White Balance (AWB), Auto Gain Control (AGC) and Auto Exposure Control (AEC), Staggered HDR and multi-frame HDR. The OAH0428 can accept 4-wire digital input, MIPI input as well as 4-wire analog input and convert it to DVP or MIPI output for signal processing. While converting the signal, it also provides image clean-up, image resizing and manipulations including frame rate control, mirroring and flipping.

The OAH0428 can interface with the MIPI output from OmniVision's OH08A, OH08B, OH02A, OH01A, or the 4-wire digital / analog output from OH0FA, OV6946, OH0TA, OV6948 and convert it to a MIPI / DVP signal.

In addition, the OAH0428 supports standard SCCB control, analog, Bayer RGB, and RAW analog inputs. During the operation, the input signals from the image sensors are digitized by an ADC and then processed by a digital signal processor (DSP) and finally standard MIPI / DVP outputs are sent out.

Find out more at [www.ovt.com](http://www.ovt.com).



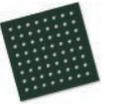
## Applications

- Endoscopes
- Wearables

## Product Features

- complete imaging front-end solution
- supports 2MP at 60 fps
- support for the following ISP functions:
  - ADC
  - BLC
  - AEC/AGC
  - MWB
- analog input
- support for SCCB control, 10-bit DVP data output, and SPI master
- flexible input clock
- external system clock or independent crystal; internal PLL
- low voltage operation
- 6 x 6 mm to fit into handle or at back-end, near ISP in medical endoscope and other video devices

# OAH0428



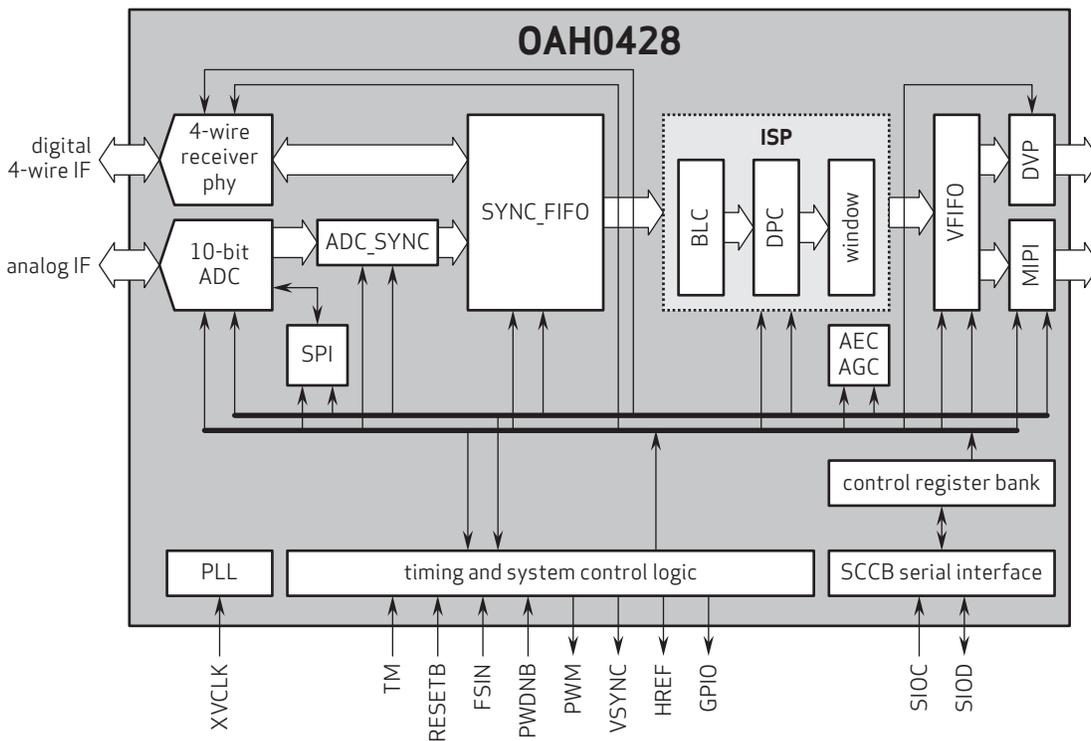
## Ordering Information

- OAH0428-B64G (lead-free)  
64-pin BGA

## Technical Specifications

- power supply:
  - core: 1.5V
  - I/O: 3.3V
  - analog: 3.3V
- temperature range: -30°C to +70°C
- package dimensions: 6 mm x 6 mm

## Functional Block Diagram



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